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WATER QUALITY MANAGEMENT STUDIES LAKE SEMINOLE, APRIL-NOVEMBER --ETC(U)
SEP 81 DACW01-78-C-0101
UNCLASSIFIED ACF-80-10 NL

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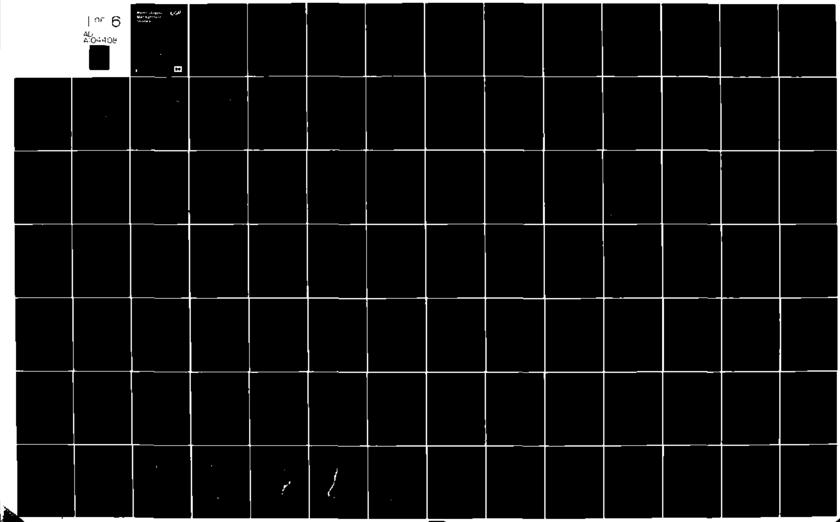

Water Quality Management Studies

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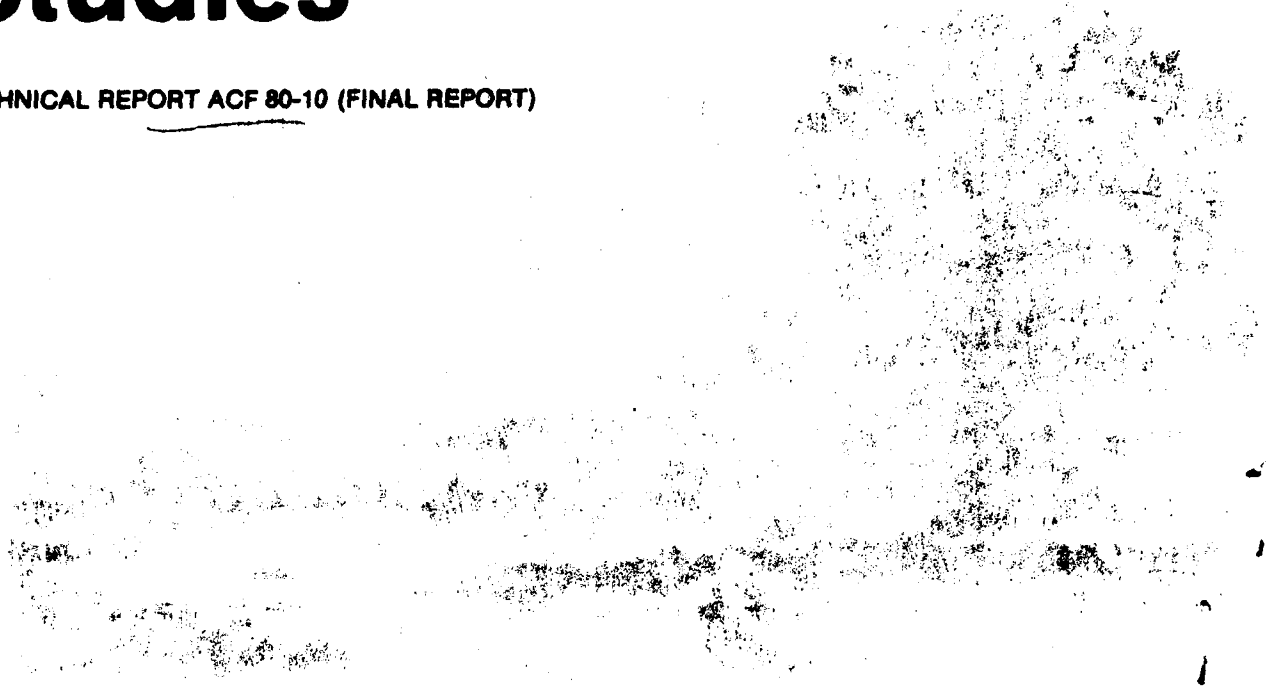
LEVEL II

TECHNICAL REPORT ACF 80-10 (FINAL REPORT)



LAKE SEMINOLE
APRIL - NOVEMBER 1978
PHASE I

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Physical, chemical water analyses	Pesticides	Chattahoochee River
Physical, chemical sediment analyses	Plankton	Flint River
Reservoir	Benthos	Apalachicola River
Nutrients Water Quality	Corbicula	Florida
Heavy metals	Lake Seminole	Georgia Alabama

20. ABSTRACT (*Continue on reverse side if necessary and identify by block number*)

This document presents the results of a nine month water quality study in Lake Seminole located partially within each of three states: Georgia, Florida, and Alabama. Meteorological, hydrological, sediment and physical, chemical and biological water quality data were obtained at a total of 19 main sampling stations in Lake Seminole, the Chattahoochee, Flint and Apalachicola Rivers, Spring Creek and Fish Pond Drain during 6 sampling cycles from April through November 1978. Limited sampling and analyses were also performed at 5 special sites. Sampling and analytical methodologies are summarized and a brief review

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and analysis of the findings, including identification of major water quality problems and recommendations for future studies, are presented. The detailed results are included in attached appendices. Where appropriate, the data generated were submitted to the EPA's STORET System.

WATER QUALITY MANAGEMENT STUDIES
LAKE SEMINOLE

April-November 1978

Technical Publication ACF80-10 (Final Report)

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ABSTRACT

This document presents the results of a nine month water quality study in Lake Seminole located partially within each of three states: Georgia, Florida, and Alabama. Meteorological, hydrological, sediment and physical, chemical and biological water quality data were obtained at a total of 19 main sampling stations in Lake Seminole, the Chattahoochee, Flint and Apalachicola Rivers, Spring Creek and Fish Pond Drain during 6 sampling cycles from April through November, 1978. Limited sampling and analyses were also performed at 5 special sites. Sampling and analytical methodologies are summarized and a brief review and analysis of the findings, including identification of major water quality problems and recommendations for future studies, are presented. The detailed results are included in attached appendices. Where appropriate, the data generated were submitted to the EPA's STORET System.

OBJECTIVES

The overall objectives of the Lake Seminole Water Quality Management Study were to a) establish base line conditions for future comparisons; b) identify water quality-environmental problems; c) collect data to allow guidance for reservoir control-discharge water quality relationships; and d) collect data that will provide conditions to facilitate coordination with state agencies to implement watershed pollution control.

Those objectives were met by taking samples for physical, chemical and biological parameters in Lake Seminole and its major tributaries, the Chattahoochee River, and the Flint River as well as the lake's outfall, the Apalachicola River. The samples were analyzed using standard analytical techniques, and the data generated were stored in the Environmental Protection Agency's (EPA) Data Storage and Retrieval (STORET) system.

INTRODUCTION

Jim Woodruff Lock and Dam is located on the Apalachicola River at Mile 107.6 (173.2 km.), about 305 meters downstream from the point where the Flint and Chattahoochee Rivers unite to form the Apalachicola River. The structure is an earthfill dam with a concrete fixed - crest spillway, a center channel spillway with 16 vertical lift gates 12.2 m long and 9.3 m high and a side channel navigation lock 25 m wide. The dam crosses the Florida-Georgia border with about 457 meters of the overflow dike being located in Dacatur County, Georgia, and the remainder of the structure being in Gadsden and Jackson Counties, Florida. The primary purposes of the structure are to aid navigation in the Chattahoochee River upstream to the George W. Andrews Lock and Dam at Mile 47 (76 km.), in the Flint River to Bainbridge, GA about 48 km. upstream and downstream in the Apalachicola River, and to generate electric power. Other stated benefits include the regulation of streamflows, public recreation and fish and wildlife conservation. Construction of the project was initiated in September, 1947. The lock was opened for navigation, and impounding of water in the reservoir was begun in May, 1954. The power plant was placed in operation and the pool was considered full when it reach elevation 77 ft. (23 m) msl in February, 1957 (USACOE, 1972).

Lake Seminole, formed by the impoundment behind the Jim Woodruff Dam, is located partially within each of three states: Georgia, Florida, and Alabama as shown in Figure 1. The reservoir has a total drainage basin area upstream of the dam of 44,630 sq. km., of which approximately 51 percent is tributary to the Chattahoochee River and 49 percent tributary to the Flint River. The reservoir consists of two major impoundment arms, the Flint and Chattahoochee, and two minor impoundment arms, Fish Pond Drain and Spring Creek, both of which are tributary to the Flint River Impoundment. The reservoir has a surface area of 152 sq. km. and a total volume of 439 million cubic meters at the normal pool elevation of 77.0 feet (23 m) msl. The pool extends up the Chattahoochee River 75.2 km. to the George W. Andrews Lock and Dam and up the Flint River 76 km. (USACOE, 1972).

The Flint River has a total length of approximately 560 km. and a total drainage basin area of some 21,900 sq. km. The basin extends about 346 km. from north to south and averages roughly 64 km. in width. The headwaters of the Flint River are in the hilly region of the Piedmont Province, in the vicinity of the Atlanta Airport at an elevation of approximately 305 m. Seventy miles downstream from its source the river flows through the Pine Mountain District of the Greenville Plateau. The river through this stretch descends at a rate of approximately 0.04 percent up to the Fall Line at Flint River Mile 286 (460 km.). At the Fall Line the river drops rapidly over a shoal, and for 64 km. downstream. Downstream of Flint River Mile 220 (354 km.) the river flows

FIGURE 1

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY SAMPLING STATION LOCATION MAP FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

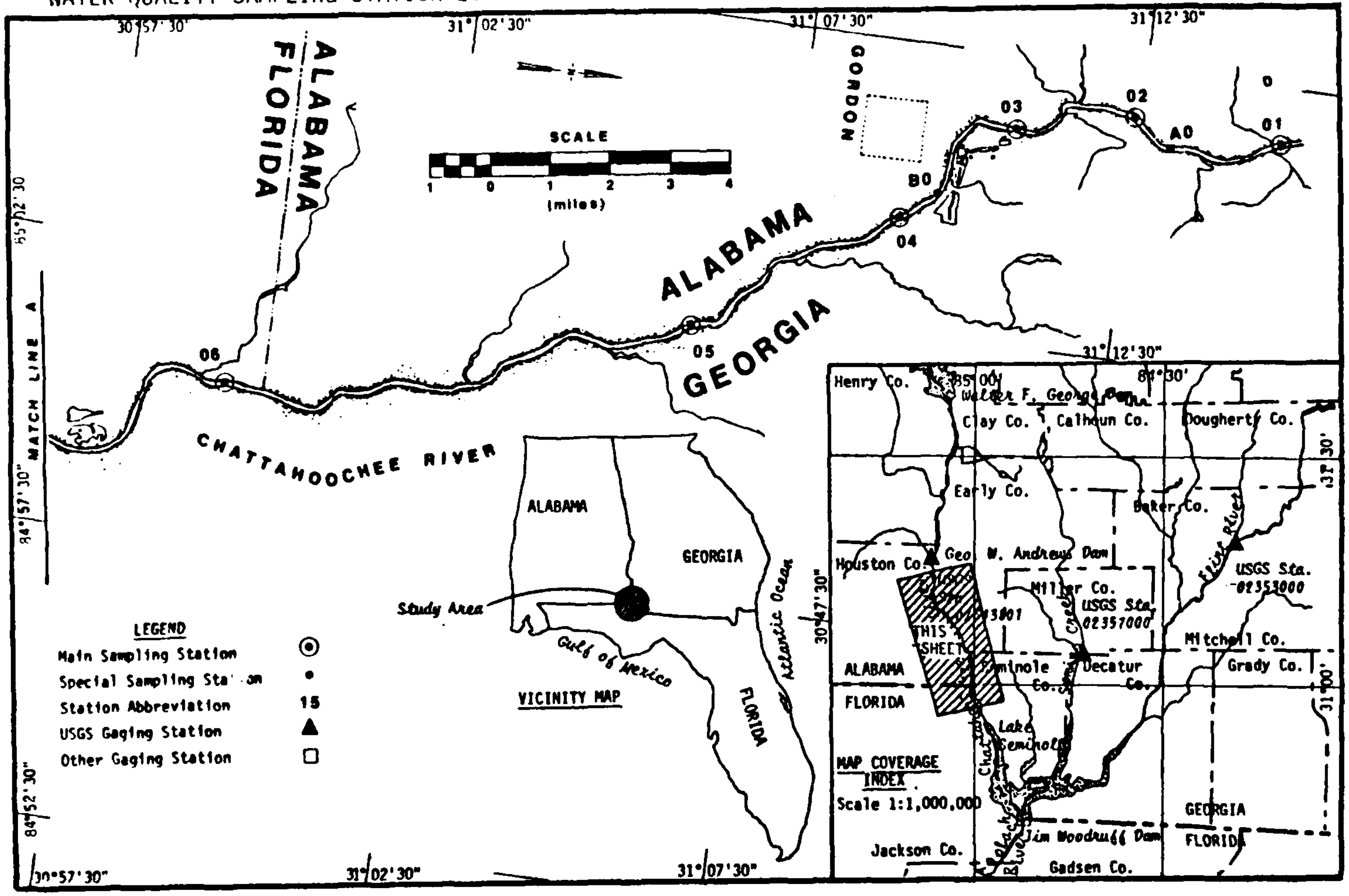


FIGURE 1 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY SAMPLING STATION LOCATION MAP FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

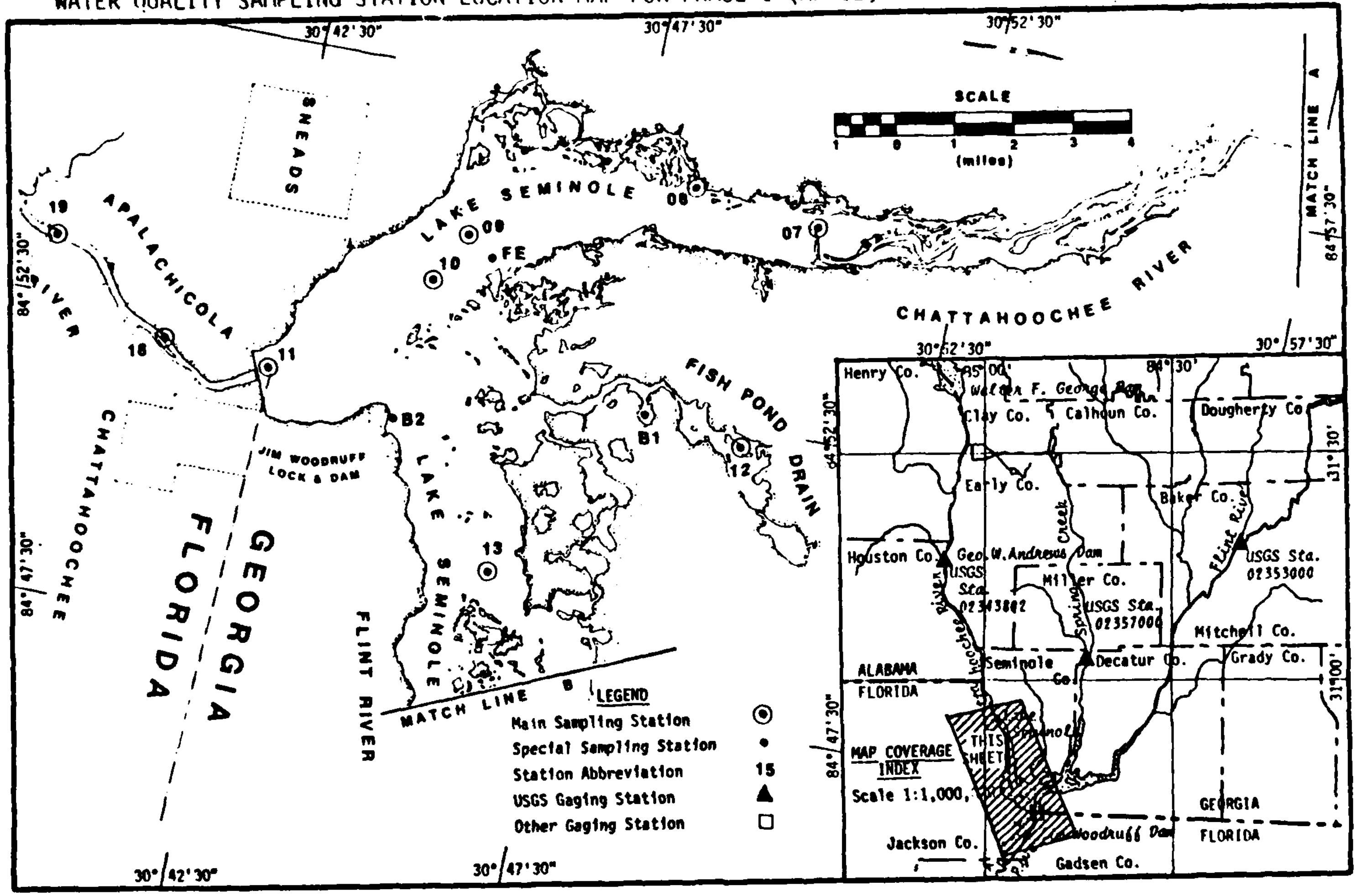
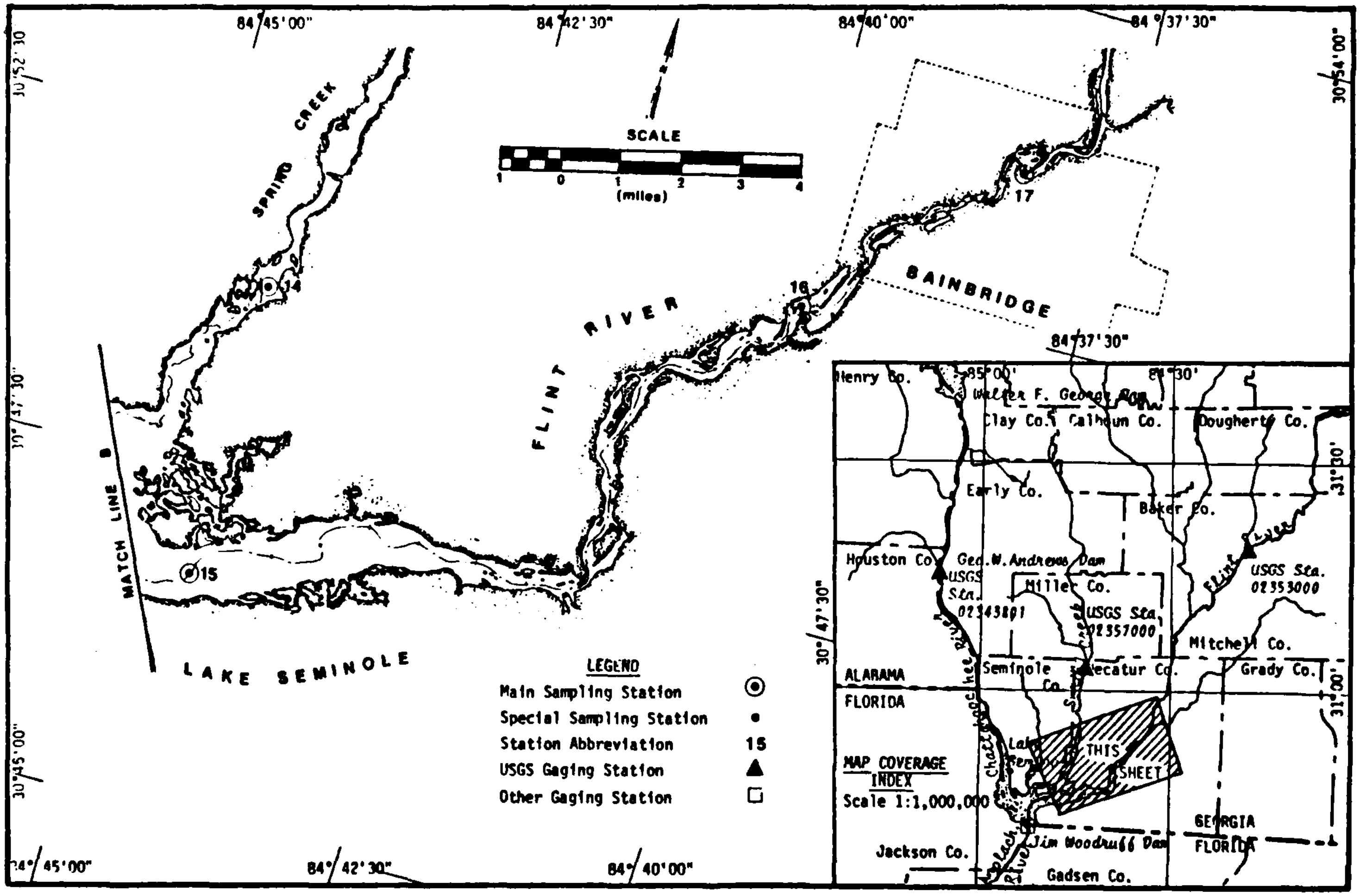


FIGURE 1 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY SAMPLING STATION LOCATION MAP FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)



through the Upper Coastal Plain of southwest Georgia until it joins the Chattahoochee River in the Lake Seminole impoundment (USACOE, 1976).

The average annual flow in the Flint River at Newton, Georgia (see Figure 1, insert) for the period of record 1938-1950 and 1956-1973 is 202 m^3/sec, with a minimum flow of 22.4 m^3/sec which occurred on both Oct. 20, and Nov. 10, 1940 and a maximum flow of 1870 m^3/sec which was recorded on March 9, 1966 (USGS, 1979).

The Chattahoochee River has a total length of approximately 1200 km. and a total drainage basin area of 22,700 sq. km. The basin extends about 410 km. from north to south. The headwaters of the Chattahoochee River are in the rugged, wooded Blue Ridge Mountains of Northern Georgia. Downstream from this area the river flows through the hills of the Piedmont Province which range in elevation from 366 m in the foothills of the Appalachian Mountains to approximately 183 m at the Fall Line. Downstream of the Fall Line the river flows through the Upper Coastal Plain until it joins the Flint River in the Lake Seminole Impoundment.

The Walter F. George Lock and Dam, located upstream of the Lake Seminole Impoundment on the Chattahoochee River at Mile 75 (121 km.) is operated as a peaking power plant and as a result there is considerable short term flow variation through the Chattahoochee River Impoundment of Lake Seminole. The average annual flow at Walter F. George Lock and Dam near Columbus, GA (see Figure 1, insert) for the period of record 1929-1978 is 192 m^3/sec, with a minimum flow of 8.3 cfs which occurred on Oct. 23, and Nov. 14, 1931 and a maximum flow of 4110 m^3/sec which occurred on Feb. 26, 1961 (USGS, 1979).

The Apalachicola River, now formed by the discharge from Jim Woodruff Dam, was originally formed by the confluence of the Flint and Chattahoochee Rivers in the extreme southwest corner of Georgia. The river is bounded on both banks by wetlands except for the upper 40 km. stretch which is bounded on the east by the Apalachicola River Bluff formation. The Mariana Lowlands extend from the western bank of the Apalachicola westward past the border of the basin and south to the Western Highlands which cut across the middle-western portion of the basin. The Tallahassee Hills occur on the eastern side of the Apalachicola from the Georgia border southward to the Coastal Lowlands. The Coastal Lowlands comprise the entire lower portion of the basin.

The river below Jim Woodruff dam decends at a rate of approximately 0.009 percent. The power plant at the Jim Woodruff Dam is a "run of the river" plant which operates around the clock except when occasional high flows reduce the available operating head causing the plant to be non-productive. There is no flood control storage available in the reservoir (USACOE, 1972). The average annual flow at the dam is 635.8 m^3/sec for the period of record Oct., 1928 to 1977, with a minimum flow of 140 m3/sec which occurred Oct. 27, 1954 and a

maximum discharge of 8300 m^3/sec which occurred on March 20, 1929 (USGS, 1978).

METHODS AND TECHNIQUES

Field Procedures

Sampling Site Locations

Sample site locations were specified by the U.S. Army Corps of Engineers (USACOE), Mobile District. The classification of sampling stations for the purpose of specifying field measurement, sediment and/or *Corbicula* sampling procedures was based in part on the total width of the cross section, the accessibility and submergence of the overbank areas as well as the inundation of the natural levees at normal pool stage. The sampling sites are shown on Figure 1, and their locations and their classifications as to river or lake station are tabulated in Table 1.

Sampling and Analytical Methodology

A complete sampling schedule showing the parameters sampled and sampling dates is shown in Table 2. A summary of the station parameter sampling schedule is shown in Table 3. A summary of the sampling methodologies, including respective maximum allowable holding times, sample container and preservation techniques as well as analytical methodologies employed and reported detection limits for the water quality parameters sampled during the course of this study can be found in Table 4.

Field Measurements

Dissolved oxygen (D.O.), pH, temperature, and specific conductance were measured at each station, one meter below the surface during every sampling cycle. To define the extent of the mixing within the river, D.O., pH, specific conductance and temperature were also sampled at depths of 0.33 meter below the surface and 1.0 meter above the river bed at midstream and within the littoral zone of both river banks at river stations 01 thru 07, 12, 14, 16, 17, 18 and 19 during the first and fourth sampling cycles (4/17-21/1978 and 8/14-17/1978). More extensive sampling including the measurement of Oxidation-Reduction Potential (ORP) at stations 7, 11 and 15 was performed during cycle 4 (8/14-17/1978) in order to develop complete cross sectional isopleths for these parameters. To define stratification, D.O., pH, specific conductance, temperature and ORP were vertically profiled at stations 07, 08, 09, 10, 11, 13 and 15 during the sampling cycles. Secchi disc and 1% light transmission measurements were also measured *in situ* at each station.

The field instruments used to sample the *in situ* parameters are listed in Table 4.

TABLE 1

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SAMPLING STATION NAME, STORET CODE, LOCATION, TYPE AND DESCRIPTION FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1979)

Station Name		Location	Type	Description
Abbrev.	STORET Code			
01	13LS01	Chattahoochee River MP 45.5	River	Chattahoochee River, 1.2 miles (1.9 km) downstream of the George W. Andrews Dam
02	13LS02	Chattahoochee River MP 42.6	River	Chattahoochee River, 1.4 miles (2.25 km) downstream of power plant, 1.0 miles (1.61 km) upstream of confluence with Cedar Creek
03	13LS03	Chattahoochee River MP 40.3	River	Chattahoochee River, 0.4 miles (0.64 km) upstream of Great Northern Paper Mill dock
04	13LS04	Chattahoochee River MP 37.5	River	Chattahoochee River, 0.3 miles (0.48 km) upstream of Gordon Landing boat ramp
05	13LS05	Chattahoochee River MP 33.3	River	Chattahoochee River, 0.3 miles (0.48 km) upstream of Navy Yard Landing
06	13LS06	Chattahoochee River MP 25.0	River	Chattahoochee River, 1.1 miles (1.77 km) upstream of Hwy. 91 bridge
07	12LS07	Chattahoochee River MP 11.0	River	Chattahoochee River, 3.2 miles (5.15 km) downstream of channel to Parramore Landing
08	12LS08	Chattahoochee River 0.2 mile SW MP 9.1	Lake	Chattahoochee River 0.2 miles (0.32 km) southwest of milepoint 9.1; out of main channel
09	13LS09	Lake Seminole-Chattahoochee River Impoundment NUN 4.8	Lake	Lake Seminole - Chattahoochee River Impoundment, 1.0 miles (1.61 km) northeast of the Three Rivers State Park boat ramp
10	12LS10	Lake Seminole-Chattahoochee River Impoundment CAN 3.9	Lake	Lake Seminole - Chattahoochee River Impoundment, 1.5 miles (2.41 km) north of Sneads Landing boat ramp; 0.1 miles (0.16 km) south of can out of the main channel
11	12LS11	Lake Seminole-Chattahoochee River Impoundment NUN 0.6	Lake	Lake Seminole - Chattahoochee River Impoundment, 0.6 miles (0.97 km) north-northwest of the Jim Woodruff Dam lock; NUN 0.6
12	13LS12	Lake Seminole-Fish Pond Drain Impoundment	River	Lake Seminole - Fish Pond Drain Impoundment Arm, 1.8 miles (1.6 km) northeast of the Georgia SR 253 bridge. River mile index mileage to confluence with the Flint River is estimated along the original stream channel.
13	13LS13	Lake Seminole-Flint River Impoundment CAN 5.5	Lake	Lake Seminole - Flint River Impoundment, 0.6 miles (0.97 km) north of the Flint River Park boat ramp; 100 meters north of can 5.5, out of main channel
14	13LS14	Lake Seminole-Spring Creek Impoundment SW SR 253	River	Lake Seminole - Spring Creek Impoundment, 2.0 miles (3.22 km) south southwest of the Georgia SR 253 bridge. River mile index mileage to confluence with the Flint River is estimated along the original stream channel
15	13LS15	Lake Seminole-Flint River Impoundment MP 9.4	Lake	Lake Seminole - Flint River Impoundment, 1.8 miles (2.9 km) west of Hutchinson's Ferry Landing boat ramp

TABLE 1 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SAMPLING STATION NAME, STORET CODE, LOCATION, TYPE AND DESCRIPTION FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Station Name		Location	Type	Description
Abbrev.	STORET Code			
16	13LS16	Flint River MP 24.0	River	Flint River, 0.6 miles (0.97 km) upstream of Fourmile Creek confluence
17	13LS17	Flint River MP 29.0	River	Flint River, 0.5 miles (0.8 km) upstream of Atlantic Coast Line RR bridge (northernmost bridge in Bainbridge)
18	12LS18	Apalachicola River NUN 104.4	River	Apalachicola River, 0.4 miles (0.64 km) downstream of Louisville & Nashville Railroad bridge; NUN 104.4
19	12LS19	Apalachicola River MP 101.5	River	Apalachicola River, 100 meters downstream of southernmost power plant docking post
A0	13LSA0	Chattahoochee River MP 43.4	River	Chattahoochee River, 0.6 miles (0.97 km) downstream of power plant
B0	13LSB0	Chattahoochee River MP 38.2	River	Chattahoochee River, 100 meters downstream of Great Northern Paper effluent outfall
B1	13LSB1	Lake Seminole-Seminole State Park Beach	River	Lake Seminole - Fish Pond Drain Impoundment Arm, 30 meters south of beach area at Seminole State Park. River mile index mileage to the confluence with the Flint River is estimated along the original stream channel
B2	13LSB2	Lake Seminole-Chattahoochee Park Beach	Lake	Lake Seminole-Flint River Impoundment, 50 meters west of the boat ramp at Chattahoochee Park
FE	13LSFE	Lake Seminole-Chattahoochee River Impoundment NUN 5.2	River	Lake Seminole - Chattahoochee River Impoundment, 0.8 miles (1.29 km) northeast of NUN 5.2; out of the main channel

TABLE 2

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameter	Sampling Cycle					
	1	2	3	4	5	6
	Sampling Dates (1978)					
	4/17-21	6/5-7	7/17-20	8/14-17	9/25-27	11/28-30
Meterological Data						
Air Temperature	X	X	X	X	X	X
Cloud Cover	X	X	X	X	X	X
Wind Velocity	X	X	X	X	X	X
Wind Direction	X	X	X	X	X	X
I. Water Quality Sampling						
Hydrological Data						
Total Depth	X	X	X	X	X	X
Stream Velocity	X	X	X	X	X	X
Wave Height	X	X	X	X	X	X
Current Speed	X	X	X	X	X	X
Current Direction	X	X	X	X	X	X
Physical Data						
Miscellaneous						
Cross-Section Loc	X	X	X	X	X	X
Sample Depth	X	X	X	X	X	X
Secchi Disk Transparency	X	X	X	X	X	X
Depth of 1% Surface Light	X	X	X	X	X	X
Field Measurements						
Water Temperature	X	X	X	X	X	X
Specific Conductance	X	X	X	X	X	X
Oxidation Reduction Potential	X	X	X	X	X	X
Dissolved Oxygen, Electrode	X	X	X	X	X	X
pH	X	X	X	X	X	X
Laboratory Data						
Color	X	X	X	X	X	X
Turbidity, Hach Turbidimeter	X	X	X	X	X	X
Total Filterable Residue	X	X	X	X	X	X
Total Nonfilterable Residue	X	X	X	X	X	X
Chemical Data						
Minerals and Metals						
Alkalinity	X	X	X	X	X	X
Chloride				X		X
Sulfate, Dissolved	X	X	X	X	X	X
Sulfide, Total		X	X	X	X	

TABLE 2 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameter	Sampling Cycle					
	1	2	3	4	5	6
	Sampling Dates (1978)					
	4/17-21	6/5-7	7/17-20	8/14-17	9/25-27	11/28-30
Chemical Data						
Minerals and Metals						
Calcium, Total				X		X
Hardness, Total				X		X
Iron, Dissolved	X	X	X	X	X	X
Iron, Total	X	X	X	X	X	X
Magnesium, Total				X		X
Manganese, Dissolved	X	X	X	X	X	X
Manganese, Total	X	X	X	X	X	X
Potassium, Total				X		X
Sodium, Total				X		X
Zinc, Total	X	X	X	X	X	X
Nutrients						
Carbon, Dissolved Organic	X	X	X	X	X	X
Carbon, Total Organic	X	X	X	X	X	X
Carbon Dioxide	X	X	X	X	X	X
Nitrogen, Total Ammonia	X	X	X	X	X	X
Nitrogen, Nitrate + Nitrite	X	X	X	X	X	X
Nitrogen, Total Inorganic	X	X	X	X	X	X
Nitrogen, Total Kjeldahl				X		X
Nitrogen, Total Organic				X		X
Nitrogen, Total				X		X
Orthophosphate, Dissolved	X	X	X	X	X	X
Phosphorus, Total	X	X	X	X	X	X
Biological Data						
Bacteriological Data						
Fecal Coliform		X	X	X	X	
Fecal Streptococci		X	X	X	X	
FC/FS Ratio		X	X	X	X	
II. Sediment Sampling						
Mechanical Data						
Sieve Analysis				X		
Hydrometer Analysis				X		
Physical & Chemical Data						
Physical Data						
Volatile Solids				X		

TABLE 2 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameter	Sampling Cycle					
	1	2	3	4	5	6
	Sampling Dates (1978)					
	4/17-21	6/5-7	7/17-20	8/14-17	9/26-27	11/28-30
<u>Physical & Chemical Data</u> (continued)						
<u>Miscellaneous Chemical Data</u>						
Carbon, Organic				X		
Nitrogen, Total Kjeldahl				X		
Oil & Grease				X		
Phosphorus, Total				X		
<u>Heavy Metals</u>						
Arsenic				X		
Cadmium				X		
Chromium				X		
Copper				X		
Iron				X		
Lead				X		
Manganese				X		
Mercury				X		
Nickel				X		
Zinc				X		
<u>Chlorinated Hydrocarbons</u>						
Aldrin				X		
Aroclor 1242				X		
Aroclor 1254				X		
Aroclor 1260				X		
Benzene Hexachloride				X		
BHC-Alpha Isomer				X		
BHC-Beta Isomer				X		
BHC-Gamma Isomer				X		
Chlordane				X		
2,4 D				X		
P,P' DDD				X		
P,P' DDE				X		
O,P' DDT				X		
P,P' DDT				X		
Dieldrin				X		
Endothol				X		
Endrin				X		
Endrin Aldehyde				X		
Glyphosphate				X		
Heptachlor				X		
Heptachlor Epoxide				X		
Methoxychlor				X		
Mirex				X		
Pentachlorophenol				X		

TABLE 2 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameter	Sampling Cycle					
	1	2	3	4	5	6
	Sampling Dates (1978)					
	4/17-21	6/5-7	7/17-20	8/14-17	9/25-27	11/28-30
III. <u>Corbicula Tissue Analysis</u>						
<u>Physical & Chemical Data</u>						
<u>Heavy Metals</u>						
Arsenic				X		
Cadmium				X		
Chromium				X		
Lead				X		
Mercury				X		
Selenium				X		
Zinc				X		
<u>Chlorinated Hydrocarbons</u>						
Aldrin				X		
Aroclor 1242				X		
Aroclor 1254				X		
Aroclor 1260				X		
BHC-Alpha Isomer				X		
BHC-Beta Isomer				X		
BHC-Gamma Isomer				X		
Chlordane				X		
P,P' DDD				X		
P,P' DDE				X		
O,P' DDT				X		
P,P' DDT				X		
Dieldrin				X		
Endosulfan Sulfate				X		
Heptachlor				X		
Heptachlor Epoxide				X		
Methoxychlor				X		
Mirex				X		
PCB				X		
Pentachlorophenol				X		
Toxaphene				X		
IV. <u>Biological Data (Composite Samples)</u>						
<u>Algal Growth Potential (Before and After Autoclaving)</u>						
Nitrogen, Total Ammonia	X		X		X	
Nitrogen, Total Kjeldahl	X		X		X	
Nitrogen, Nitrate + Nitrite	X		X		X	
Orthophosphate, Dissolved	X		X		X	
Phosphorus, Total	X		X		X	
pH, Lab	X		X		X	
Specific Conductance	X		X		X	

TABLE 2 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameter	Sampling Cycle					
	1	2	3	4	5	6
	Sampling Dates (1978)					
	4/17-21	6/5-7	7/17-20	8/14-17	9/25-27	11/28-30
IV. <u>Biological Data (Continued)</u>						
<u>Algal Counts</u>						
12-Day Count	X		X		X	
12-Day Count, Std. Dev.	X		X		X	
14-Day Avg. Count	X		X		X	
14-Day Count, Std. Dev.	X		X		X	
<u>Biomass Measurements</u>						
<u>Benthic</u>						
Biomass, Benthic	X	X	X	X	X	X
<u>Euphotic Zone</u>						
ATP-Adenosine Triphosphate	X	X	X	X	X	X
Biomass, Plankton	X	X	X	X	X	X
Chlorophyll-a	X	X	X	X	X	X
Chlorophyll-$\bar{b}$	X	X	X	X	X	X
Chlorophyll-$\bar{c}$	X	X	X	X	X	X
<u>Macroinvertebrates</u>						
Benthic	X		X		X	
Hester Dendy (P=Placed; R=Retrieved)	P	R	P	R		
<u>Benthic Diversity</u>						
Shannon-Weaver DI (Base 2.0)	X		X		X	
<u>Plankton</u>						
Phytoplankton	X	X	X	X	X	X
Zooplankton	X	X	X	X	X	X

TABLE 3

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
STATION SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameters[1]	(A) Main Sampling Stations																		
	01	02	03	04	05	06	07	08	09	10	11	12[9]	13	14[9]	15	16	17	18[9]	19[9]
Meteorological Data	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I. Water Quality Data																			
Hydrological Data	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Physical Data																			
Miscellaneous	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Field Measurements																			
1. Surface (or Mid-Depth)[2]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. Surface and Bottom[3]	X	X	X	X	X	X						X		X		X	X	X	X
3. Vertical Profile							X	X	X	X	X		X		X				
4. Complete Cross-Sectional							X	(4)			X				X				
Laboratory Data																			
1. Surface (or Mid-Depth)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. Bottom[5]							X		X	X	X		X		X				
Chemical Data																			
1. Surface (or Mid-Depth)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. Bottom[5]							X		X	X	X		X		X				
Biological Data[6] (Bacteria)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
II. Sediment Sampling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
III. Corbicula	X		X	X				X			X	X		X	X	X			X

TABLE 3 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
STATION SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameters[1]	(A) Main Sampling Stations 01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
IV. Biological Data (Composite Samples)																			
Algal Growth Potential						X	X		X	X	X	X	X	X	X	X		X	
Biomass Measurements	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Macroinvertebrates																			
Benthic	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hester Dendy	X	X	X	X	X	X	X		X		X	X	X	X	X	X		X	X
Benthic Diversity	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Plankton	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	(B) Special Stations AO	BO	B1	B2	FE[7]														
Meterological Data	X	X	X	X	X														
I. Water Quality Data																			
Hydrological Data	X	X	X	X	X														
Physical Data																			
Miscellaneous																			
Field Measurements	X	X			X														
Laboratory Data[8]	X	X			X														
Biological Data (Bacteria)			X	X															

TABLE 3 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
STATION SAMPLING SCHEDULE FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

NOTES:

1. See Table 2 for a Complete List of Parameters Sampled.
2. Unless otherwise noted, taken at mid-stream one meter below water surface or at mid-depth where total depth was less than 10 ft.
3. Unless otherwise noted, all parameters except ORP sampled 0.3 meters below water surface and 1 meter above bottom surface at mid-stream and left and right littoral zone during Cycles 1 (4/17-21/1978) and 4 (8/14-17/1978) only.
4. Originally scheduled to be sampled.
5. Unless otherwise noted, taken 1 meter above bottom during Cycles 3 through 6 only.
6. Unless otherwise noted, taken 0.3 meters below water surface.
7. Sampling at Station FF initiated during Cycle 2 (6/5-7/1978).
8. Only Turbidity.
9. See text, Water Quality Sampling, p. 26.

TABLE 4

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	I. Water Quality Sampling						
	Physical Data						
	Miscellaneous						
00077	Secchi Disk Transparency	None	--	(in situ)	#13, Secchi disk, 20 cm.	--	m
00034	Depth of 1% Surface Light	None	--	(in situ)	Protomatic Instruments underwater photometer	--	m
	Field Measurements						
00010	Water Temperature	None	--	(in situ)	Yellow Springs Instr. D.O. meter, 51B	--	°C
00094	Specific Conductance	None	--	(in situ)	Yellow Springs Instr. SCT meter, 33	--	µmho/cm @25°C
00090	Oxidation Reduction Potential	None	--	(in situ)	Photovolt pH meter, 126A & ORP	--	mv
00299	Dissolved Oxygen, Electrode	None	--	(in situ)	Yellow Springs Instr., D.O. meter, 51B	0.1	mg/l
00400	pH	None	--	(in situ)	Photovolt pH meter, Model 1269	--	std. units
	Laboratory Data						
00080	Color	24 hrs	P,G	4°C	#3, p. 36	--	Pt-Co units
00076	Turbidity	7 days	P,G	4°C	#3, p. 295	(var.)	FTU
00095	Specific Conductance				Yellow Springs Instr. SCT meter, 33	--	µmho/cm @ 25°C
00515	Total Filterable Residue	7 days	P,G	4°C	#1, p. 93	10	mg/l
00530	Total Nonfilterable Residue	7 days	P,G	4°C	#1, p. 94	10	mg/l
	Chemical Data						
	Minerals and Metals						
00410	Alkalinity, Total	24 hrs	P,G	4°C	#1, p. 278	--	mg as $CaCO_3$/l
00940	Chloride	7 days	P,G	None required	#1, p. 304	1	mg Cl/l
00946	Sulfate, Dissolved	7 days	P,G	4°C	#1, p. 496	1	mg SO_4/l
00745	Sulfide, Total	24 hrs	P,G	2 ml 2N zinc acetate /l	#1, p. 499	0.1	mg S/l
00916	Calcium, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 82, 103	0.1	mg Ca/l
00900	Hardness, Total				Calculated	--	mg as $CaCO_3$/l
01046	Iron, Dissolved	6 mo	P,G	Filter on site, HNO_3 to pH <2	#3, p. 81, 110	0.050	mg Fe/l
01045	Iron, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 82, 110	0.050	mg Fe/l
00927	Magnesium, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 82, 114	0.1	mg Mg/l
01056	Manganese, Dissolved	6 mo	P,G	Filter on site, HNO_3 to pH <2	#3, p. 81, 116	0.050	mg Mn/l
01055	Manganese, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 81, 116	0.050	mg Mn/l
00937	Potassium, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 82, 143	0.1	mg K/l
00929	Sodium, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 82, 147	0.03	mg Na/l
01092	Zinc, Total	6 mo	P,G	HNO_3 to pH <2	#3, p. 82, 155	0.010	mg Zn/l

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	I. Water Quality Sampling (continued)						
	Nutrients						
00681	Carbon, Dissolved Organic	24 hrs	P,G	4°C, H_2SO_4 to pH <2	#3, p. 236	2.0	mg C/l
00680	Carbon, Total Organic	24 hrs	P,G	4°C, H_2SO_4 to pH <2	#3, p. 236	1.0	mg C/l
00405	Carbon Dioxide				Calculated	--	mg CO_2/l
00610	Nitrogen, Total Ammonia	24 hrs	P,G	4°C, H_2SO_4 to pH <2	#3, p. 159	0.01	mg N/l
00630	Nitrogen, Nitrate + Nitrite	24 hrs	P,G	4°C, H_2SO_4 to pH <2	#1, p. 620	0.01	mg N/l
00640	Nitrogen, Total Inorganic				Calculated	--	mg N/l
00625	Nitrogen, Total Kjeldahl	7 days	P,G	4°C, H_2SO_4 to pH <2	#3, p. 175	0.1	mg N/l
00605	Nitrogen, Total Organic				Calculated	--	mg N/l
00600	Nitrogen, Total				Calculated	--	mg N/l
00671	Orthophosphate, Dissolved	24 hrs	P,G	4°C, Filter on site	#3, p. 256	0.01	mg P/l
00655	Phosphorus, Total	7 days	P,G	4°C, H_2SO_4 to pH <2	#3, p. 249, 256	0.01	mg P/l
	Biological Data						
	Bacteriological Data						
31616	Fecal Coliform	8 hrs	Sterilized	4°C	#1, p. 937	--	MPN/100 ml
31673	Fecal Streptococci	8 hrs	Sterilized	4°C	#1, p. 944	--	MPN/100 ml
	II. Sediment Sampling						
	Mechanical Data						
	Sieve Analysis						
80217	Bed Mtl (% Finer than 25.4 mm)	--	P	None required	#4, D 422-63	--	
80216	Bed Mtl (% finer than 19.1 mm)	--	P	None required	#4, D 422-63	--	
80214	Bed Mtl (% finer than 9.52 mm)	--	P	None required	#4, D 422-63	--	
80213	Bed Mtl (% finer than 4.76 mm)	--	P	None required	#4, D 422-63	--	
80208	Bed Mtl (% finer than 2.0 mm)	--	P	None required	#4, D 422-63	--	
	Physical & Chemical Data						
	Physical Data						
	Volatile Solids	14 days	P	4°C	#5, p. 539	--	% total dry weight
	Miscellaneous Chemical Data						
00687	Carbon, Organic	14 days	P	4°C, H_2SO_4	#6	5	gm C/kg dry wt.
00627	Nitrogen, Total Kjeldahl	14 days	P	4°C, H_2SO_4	#5, p. 469	1.0	mg N/kg dry wt.
00557	Oil and Grease	14 days		4°C, H_2SO_4	#7, p. 42	50	mg/kg dry wt.
00668	Phosphorus, Total	14 days		4°C, H_2SO_4	#8	0.7	mg P/kg dry wt.

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	II. Sediment Sampling (continued)						
	Heavy Metals						
01003	Arsenic	3 mo	P	HNO_3	#8	0.1	mg As/kg dry wt.
01028	Cadmium	3 mo	P	HNO_3	#8	1	mg Cd/kg dry wt.
01029	Chromium	3 mo	P	HNO_3	#8	2	mg Cr/kg dry wt.
01043	Copper	3 mo	P	HNO_3	#8	2	mg Cu/kg dry wt.
01170	Iron	3 mo	P	HNO_3	#8	2	mg Fe/kg dry wt.
01052	Lead	3 mo	P	HNO_3	#8	8	mg Pb/kg dry wt.
01053	Manganese	3 mo	P	HNO_3	#8	2	mg Mn/kg dry wt.
71921	Mercury	3 mo	P	HNO_3	#8	2	µg Hg/kg dry wt.
01068	Nickel	3 mo	P	HNO_3	#8	3	mg Ni/kg dry wt.
01093	Zinc	3 mo	P	HNO_3	#8	1	mg Zn/kg dry wt.
	Chlorinated Hydrocarbons						
39333	Aldrin	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39499	Aroclor 1242	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39507	Aroclor 1254	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39511	Aroclor 1260	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39343	Benzene Hexachloride	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39076	BHC-Alpha Isomer	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
34257	BHC-Beta Isomer	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
	BHC-Gamma Isomer	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39351	Chlordane	1 mo	G	Freeze	#9	0.5	µg/kg dry wt.
39731	2,4 D	1 mo	G	Freeze	#9	2	µg/kg dry wt.
39311	P,P' DDD	1 mo	G	Freeze	#9	0.2	µg/kg dry wt.
39321	P,P' DDE	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39306	O,P' DDT	1 mo	G	Freeze	#9	0.2	µg/kg dry wt.
39301	P,P' DDT	1 mo	G	Freeze	#9	0.2	µg/kg dry wt.
39383	Dieldrin	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
	Endothul	1 mo	G	Freeze	#9	0.5	µg/kg dry wt.
39393	Endrin	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
34369	Endrin Aldehyde	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
	Glyphosphate	1 mo	G	Freeze	#9	1	µg/kg dry wt.
39413	Heptachlor	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39423	Heptachlor Epoxide	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39481	Methoxychlor	1 mo	G	Freeze	#9	0.2	µg/kg dry wt.
39758	Mirex	1 mo	G	Freeze	#9	0.1	µg/kg dry wt.
39061	Pentachlorophenol	1 mo	G	Freeze	#9	0.5	µg/kg dry wt.
39403	Toxaphene	1 mo	G	Freeze	#9	0.5	µg/kg dry wt.
	III. Corbicula Tissue Analysis						
	Physical & Chemical Data						
	Heavy Metals						
01004	Arsenic	--	P,G	Freeze	#10, p. 30	0.1	mg As/kg wet wt.
71940	Cadmium	--	P,G	Freeze	#10, p. 30	0.05	mg Cd/kg wet wt.
71939	Chromium	--	P,G	Freeze	#10, p. 30	0.1	mg Cr/kg wet wt.
71936	Lead	--	P,G	Freeze	#10, p. 30	0.1	mg Pb/kg wet wt.
71930	Mercury	--	P,G	Freeze	#10, p. 30	0.005	mg Hg/kg wet wt.
01149	Selenium	--	P,G	Freeze	#10, p. 30	0.1	mg Se/kg wet wt.
71938	Zinc	--	P,G	Freeze	#10, p. 30	1.0	mg Zn/kg wet wt.

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	III. Corbicula Tissue Analysis (continued)						
	Chlorinated Hydrocarbons						
39334	Aldrin	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.2	µg/kg wet wt.
39497	Aroclor 1242	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	25	µg/kg wet wt.
39512	Aroclor 1254	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	25	µg/kg wet wt.
34670	Aroclor 1260	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	25	µg/kg wet wt.
39074	BHC-Alpha Isomer	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.2	µg/kg wet wt.
39258	BHC-Beta Isomer	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.2	µg/kg wet wt.
39075	BHC-Gamma Isomer	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.1	µg/kg wet wt.
39349	Chlordane	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.5	µg/kg wet wt.
39312	P,P' DDD	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.5	µg/kg wet wt.
39322	P,P' DDE	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.5	µg/kg wet wt.
39318	O,P' DDT	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.5	µg/kg wet wt.
39317	P,P' DDT	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.5	µg/kg wet wt.
39397	Dieldrin	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.5	µg/kg wet wt.
39355	Endosulfan Sulfate	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	5	µg/kg wet wt.
39414	Heptachlor	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.2	µg/kg wet wt.
39424	Heptachlor Epoxide	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	0.2	µg/kg wet wt.
	Methoxychlor	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	5	µg/kg wet wt.
	Mirex	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	5	µg/kg wet wt.
	PCB	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	25	µg/kg wet wt.
39060	Pentachlorophenol	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	5	µg/kg wet wt.
39407	Toxaphene	1 mo	G, teflon lid wrapped in aluminum foil	Freeze	#11	5	µg/kg wet wt.

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES
ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	IV. Biological Data (Composite Samples)						
	Algal Growth Potential Before and After Autoclaving						
	Nitrogen, Total Ammonia	24 hrs	P,G	4°C, H_2SO_4 to pH <2	#3, p. 159	0.01	mg N/l
	Nitrogen, Total Kjeldahl	7 days	P,G	4°C, H_2SO_4 to pH <2	#3, p. 175	0.1	mg N/l
	Nitrogen, Nitrate + Nitrite	24 hrs	P,G	4°C, H_2SO_4 to pH <2	#1, p. 620	0.01	mg N/l
	Orthophosphate, Dissolved	24 hrs	P,G	4°C, Filter on site	#3, p. 256	0.01	mg P/l
	Phosphorus, Total	7 days	P,G	4°C, H_2SO_4 to pH <2	#3, p. 249, 256	0.01	mg P/l
	pH	None	P,G	4°C		--	std. units
	Specific Conductance	None	P,G	4°C	#1, p. 460	--	umho/cm @ 25°C
70988	Algal Growth Potential	N/A	N/A	N/A	#12, calculated (mean of 12 and 14 day counts with no nutrients added)	--	mg/l
	Algal Counts	N/A	N/A	N/A	Coulter Model 7(Particle Counter	10	μm^3/cell
	Biomass Measurements						
	Benthic						
	Biomass, Benthic	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$) to pH 7.0-7.3), Rose Bengal	(See Text)	--	
	Euphotic Zone						
70996	ATP-Adenosine Triphosphate	6 mo	Extract immed	-20°C	#2, p. 1043	10	ng/l
	Biomass, Plankton	7 days	P,G	4°C	#1, p. 1035	1.0	gm/cu m
32211	Chlorophyll-a	30 days	Filter immed	Frozen, dark	#1, p. 1030, 1032	0.1	ug/l
32212	Chlorophyll-b	30 days	Filter immed	Frozen, dark	#1, p. 1030, 1032	0.1	ug/l
32214	Chlorophyll-c	30 days	Filter immed	Frozen, dark	#1, p. 1030, 1032	0.1	ug/l
	Macroinvertebrates						
	Benthic						
	General	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$ to pH 7.0-7.3),Rose Bengal	#18 (See Text)	--	
75006	Bryozoa	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$ to pH 7.0-7.3),Rose Bengal	#18 (See Text)	1	No./sq m
75009	Caddis	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$ to pH 7.0-7.3),Rose Bengal	#18 (See Text)	1	No./sq m
75018	Chaoborus	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$ to pH 7.0-7.3),Rose Bengal	#18 (See Text)	1	No./sq m
75021	Chironomidae	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$ to pH 7.0-7.3),Rose Bengal	#18 (See Text)	1	No./sq m
75024	Corbicula	None	P	10% Formalin, (w/$Na_2B_4O_{7(sol)}$ to pH 7.0-7.3),Rose Bengal	#18 (See Text)	1	No./sq m

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	Macroinvertebrates						
	Benthic (continued)						
75027	Hexagenia	None	P	10% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3, Rose Bengal	#18 (See Text)	1	No./sq m
75015	Leeches	None	P	10% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3, Rose Bengal	#18 (See Text)	1	No./sq m
75012	Snails	None	P	10% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3, Rose Bengal	#18 (See Text)	1	No./sq m
75003	Sponges	None	P	10% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3, Rose Bengal	#18 (See Text)	1	No./sq m
	Hester Dendy						
	General	None	P	10% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3, Rose Bengal	(See Text)	--	No./sq m
	Plankton						
	Phytoplankton						
	General	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71300	Division Chlorophyta	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71322	Order Chlorococcales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71320	Order Cladophorales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71308	Order Tetrasporales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71311	Order Ulotrichales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71302	Order Volvocales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71335	Order Zygnematales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71393	Division Chrysophyta	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71400	Class Bacillariophyceae	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71394	Class Chrysophyceae	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71432	Division Cyanophyta	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol)) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEBMER, 1978)

STORET Code	Parameter	Holding Time	Container	Preservation Technique	Analytical Methodology	Detection Limit	Units
	Plankton						
	Phytoplankton (continued)						
71430	Order Chamaesiphonales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71431	Order Chroococcales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71440	Order Hormogonales	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71377	Division Euglenophyta	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
71281	Division Pyrrophyta	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	#14, 15, 16, 17 (See Text)	1.0	No./ml
	Zooplankton						
	General	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71287	Phylum Arthropoda	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71289	Larvae Crustacea	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71291	Order Cladocera	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71295	Subclass Ostracoda	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71297	Order Copepoda	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71261	Phylum Protozoa	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71259	Class Ciliata	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71263	Class Sarcodina	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
71270	Phylum Rotifera	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L
59999	Zooplankton, Other	None	P	5% Formalin, (w/$Na_2B_4O_7$(sol) to pH 7.0-7.3), Rose Bengal	(See Text)	0.01	No./L

TABLE 4 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY WATER QUALITY PARAMETER STORET CODES, MAXIMUM HOLDING TIMES, PRESERVATION TECHNIQUES, ANALYTICAL METHODOLOGY AND DETECTION LIMITS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

NOTES:
1. P = Plastic or G = Glass or N/A = Not Applicable
2. Applies to the portion to be autoclaved
3. Holding time after processing, which shall occur within 7 days after collection. Store at 4°C until processing.

References:

1. American Public Health Association, American Water Works Association & Water Pollution Control Federation. 1976. Standard methods for the examination of water and wastewater, 14th ed. American Public Health Association, Washington, DC. 1193 pp.
2. American Society for Testing and Materials. 1977. Annual book of ASTM standards, Part 31, water. ASTM, Philadelphia, PA. 1110 pp.
3. Environmental Protection Agency. 1974a. Methods for chemical analysis of water and wastes. Environmental Monitoring and Support Lab., Office of Research & Development, U.S. EPA, Cincinnati, OH. EPA-625/6-74-003. 298 pp.
4. American Society for Testing and Materials. 1976. Annual book of ASTM standards, Part 19, Natural building stones, soil and rock, peats, mosses, and humus (reapproved 1972).
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6. Finger, J.W. 1978. Personal Communication. EPA Region IV Water Quality Laboratory, Athens, GA.
7. Environmental Protection Agency. 1969. Chemistry laboratory manual bottom sediments. Great Lakes Region Committee on Analytical Methods. U.S. EPA. 101 pp.
8. U.S. Army Engineer Waterways Experiment Station. 1976. Ecological evaluation of proposed discharge of dredged or fill material into navigable water. Dredged Material Research Program Miscellaneous Paper D-76-17, Appendix D: Total sediment analysis procedures. Environmental Effects Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 13 pp.
9. Environmental Protection Agency. 1974b. Extraction procedure for organo-chlorine and organo-phosphate pesticides in sediment-polytron. Method SP-7/74. Region IV Surveillance and Analysis Division, EPA, Athens, GA.
10. Environmental Protection Agency. 1977. Sampling and analysis procedures for screening of fish for priority pollutants. Environmental Monitoring and Support Lab., Office of Research and Development, EPA, Cincinnati, OH. 40 pp.
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12. Miller, W.E., J.C. Green, and T. Shiroyama. 1978. The Selenastrum capricornutum Printz algal assay: bottle test. Experimental design, application, and data interpretation protocol. Corvallis Environmental Research Lab., U.S. Environmental Protection Agency. EPA Document No. 600/9-78-018. 125 pp.
13. Tennessee Valley Authority. 1978. Standard methods for routine water quality and aquatic biological field surveys manual. Division of Environmental Planning, Water Quality and Ecology Branch, TVA.
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15. Utermöhl, H. 1958. Zur vervollkommnug der quantitativen phytoplankton - methodik. Mitt. Int. Ver. Limnol. 9:1-38.
16. Werff, A. van der. 1953. A new method of concentrating and cleaning diatoms and other organisms. International Association of Theoretical Applied Limnology, Verhandlugen, Vol. 12:276-277.
17. Patrick, R. and C.W. Reimer. 1966. The diatoms of the United States. Vol. 1. Academy of Natural Sciences of Philadelphia Monograph No. 13. 688 pp.
18. Weber, C.I., ed. 1973. Biological field and laboratory methods for measuring the quality of surface waters and effluents. National Environmental Research Center, U.S. Environmental Protection Agency, Cincinnati, OH. 171 pp.

All field instruments (see below) are calibrated against standards or as specified and provided with spare batteries and/or chargers before being sent into the field. In addition, appropriate standard solutions were sent to the field with the instrument. All instruments were rechecked upon return; necessary maintenance and/or provision for storage was accomplished as specified by the instrument manufacturer. When in use, instruments were calibrated prior to beginning a set of measurements and at a minimum of four-hour intervals with a final check at the end. Verification of calibration was run after every 10 samples or if any unusual reading was encountered. Any anomaly was recorded.

Instrument	Routine Calibration
Dissolved Oxygen Meter	Air calibration as specified. Calibrated versus Winkler titration if problems were suspected or after any membrane change.
pH Meter	Battery check and calibration against commercially available certified buffers.
Conductivity Meter	Calibrated daily against KCl solution 0.01 demal as specified in manual. Any deviation in reading from manual specifications was recorded in notes.
Temperature Functions	Checked against mercury thermometer daily. Any deviation was reported in notes.
Current Meter	Circuit check. Daily check of zero. Yearly factory recalibration.

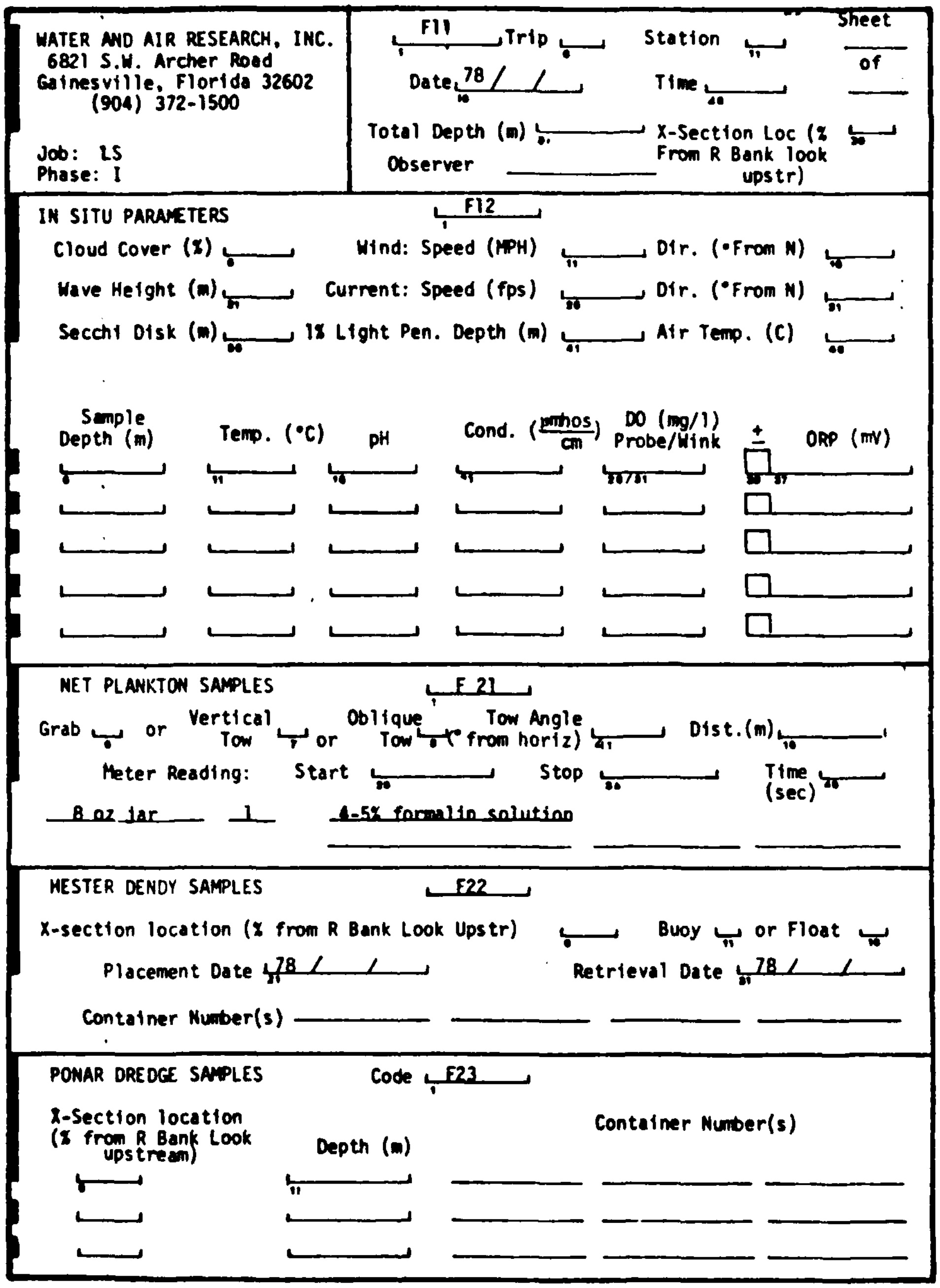
In situ measurements were recorded along with weather conditions in the appropriate section in the field data notes on carbonless duplicate field record as shown in Figure 2. The notes were checked for completeness before leaving each station, and initialed by the observer.

Water Quality Sampling

Unless otherwise noted, water quality sampling followed the schedules summarized in Tables 2 and 3. During the second and subsequent sampling cycles special sampling station FE was located approximately 0.7 km. west of the location originally specified be-

FIGURE 2

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
TYPICAL FIELD DATA RECORD SHEET FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)



WATER AND AIR RESEARCH, INC.
6821 S.W. Archer Road
Gainesville, Florida 32602
(904) 372-1500

Job: LS
Phase: I

F11 ______ Trip ____ Station ____ Sheet ____ of ____

Date 78 / / ______ Time ______

Total Depth (m) ______ X-Section Loc (% From R Bank look upstr) ____

Observer ______

IN SITU PARAMETERS F12

Cloud Cover (%) ____ Wind: Speed (MPH) ____ Dir. (°From N) ____

Wave Height (m) ____ Current: Speed (fps) ____ Dir. (°From N) ____

Secchi Disk (m) ____ 1% Light Pen. Depth (m) ____ Air Temp. (C) ____

Sample Depth (m)	Temp. (°C)	pH	Cond. ($\frac{\mu mhos}{cm}$)	DO (mg/l) Probe/Wink	±	ORP (mV)
____	____	____	____	____	☐	____
____	____	____	____	____	☐	____
____	____	____	____	____	☐	____
____	____	____	____	____	☐	____
____	____	____	____	____	☐	____

NET PLANKTON SAMPLES F 21

Grab ___ or Vertical Tow ___ or Oblique Tow ___ Tow Angle (° from horiz) ____ Dist.(m) ______

Meter Reading: Start ______ Stop ______ Time (sec) ____

8 oz jar 1 4-5% formalin solution

HESTER DENDY SAMPLES F22

X-section location (% from R Bank Look Upstr) ____ Buoy ___ or Float ___

Placement Date 78 / / ______ Retrieval Date 78 / / ______

Container Number(s) ______ ______ ______ ______

PONAR DREDGE SAMPLES Code F23

X-Section location (% from R Bank Look upstream)	Depth (m)	Container Number(s)		
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____

cause of the inaccessibility of the original site due to submerged navigation hazards. During the sixth sampling cycle the water level in Lake Seminole was at a record low level. As a result, station 12 in Fish Pond Drain was inaccessible and was therefore not sampled. Due to equipment malfunctions, also during cycle 6, station 18 in the Apalachicola River was sampled 2.4 km. upstream of the original site and adjacent to the east bank instead of at midstream, station 14 in Spring Creek was sampled at a point 2.0 km. downstream of the original site and station 19 in the Apalachicola was not sampled. Therefore, the results for cycle 6 at stations 14 and 18 may not be strictly comparable to the data obtained during previous sampling cycles.

Subsequent to sampling cycle 1 in April, all preservatives were added to the appropriate sample containers, with the exception of containers for spiked metal analyses, prior to being sent into the field. The actual spiking of spiked metal samples was also performed in the field beginning with cycle 2.

Grab Samples. Grab samples for the water quality parameters listed in Table 2 were taken at midstream one meter below the surface or at mid-depth where the station depth was less than ten feet. In addition, to define the effects of stratification, grab samples were taken at midsection one meter above the bottom at sampling sites 07, 09, 10, 11, 13 and 15 (Table 3) for complete analyses from the third through sixth sampling cycles.

The samples were collected with either a 2-liter Wildco-Beta-Plus horizontal style water sampler or a 4-liter Wildco Alpha vertical style water sampler. The samples which require filtration such as dissolved metals, dissolved ortho-phosphate and dissolved organic carbon (DOC) were filtered immediately on the boat according to the method in Table 4. The samples were then distributed to the sample containers with the proper preservative as outlined in Table 4. The sample bottle numbers were recorded on a carbonless duplicate field bottle record as shown in Figure 3. After all the bottles had been recorded and checked, they were stored as specified in Table 4, in coolers either filled with ice at 4^oC or filled with dry ice for those samples which had to be frozen immediately.

Preservatives were added to most of the sample containers that require them prior to going to the field. However, the samples for the total and dissolved metals analyses, which require concentrated nitric acid (HNO_3) as a preservative were preserved in the field to reduce the amount of time the undiluted HNO_3 was in contact with the sample container. In addition, the samples used for dissolved organic carbon analyses had their preservative, sulfuric acid (H_2SO_4), added in the field to minimize the risk of organic contamination. Also,

following the first sampling cycle in April, it was noted that the results of the dissolved organic carbon analyses were slightly greater than the corresponding total organic carbon (TOC) values. This was attributed to the use of a cellulose acetate filter in the filtration step. To verify this assumption, organic carbon analyses were run on both filtered and unfiltered deionized water samples. The filtered samples averaged 1.5 mg C/l higher than the unfiltered samples. Since the average difference between DOC and TOC values for the results from the first cycle averaged 1.43 mg C/l, it was concluded that the filter paper used could account for the anomalous results. Thus, on DOC analyses for subsequent sampling cycles, 0.45 μ glass fiber filters were utilized. Nevertheless, despite efforts to prevent any contamination in either the sampling, handling or preservation phases, on a number of samples DOC values were greater than TOC values, although all values were less than 8 mg C/l and in general the differences between DOC and TOC were 1 to 2 mg C/l. In all cases where DOC results were greater than corresponding TOC results, the DOC results were reported as "less than" the stated value.

Composite Samples. Composite samples for chlorophyll a, b, and c, phytoplankton, dry biomass, adenosine triphosphate (ATP), and algal growth potential were obtained by collecting a depth integrated raw water sample from either the euphotic zone, defined as the zone above the 1% light transmission level, in quiescent waters (lake stations) or from the entire water column in more turbulent waters (river stations). Samples were taken using a horizontal beta water sampler at the surface and at one meter intervals until the lower limit was reached as determined above. The samples were then composited and the required aliquots for the various parameters were drawn. When the depth to be composited was greater than seven meters, samples were taken at the surface and equal spaces over the required sampling depth.

Bacteriology Sampling and Analysis

Bacteria grab samples were taken (Table 3) in two 100 ml autoclaved sample bottles at a depth of 0.3 meters below the water's surface. Analyses for fecal coliforms and fecal streptococci were run in the field according to the method shown in Table 4. Precision control was tested by duplicating the first station of each day. Results were considered consistant if the 95 percent confidence intervals for both replicates overlapped.

Sediment Sampling and Analysis

Sediment samples were collected at each station listed in Table 3 and analyzed by the method referenced in Table 4. Each river station sediment sample was composited from approximately equal volumes of each of four separate grab samples, obtained with

FIGURE 3

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
TYPICAL FIELD BOTTLE LIST RECORD FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

WATER AND AIR RESEARCH, INC.
6821 S.W. Archer Road
P.O. Box 1121
Gainesville, Florida 32602
(904) 372-1500

Trip ________ Station ________ Sheet ____ of ____

Job: LS

Phase: I

Observer ________

DEPTH INTEGRATED SAMPLES Temp ________ pH ________ Cond. ________

Sample Container	No. Req'd	Preservation Technique	Container Number(s)	
1 qt. plastic jar	1	4-5% formalin soln (phytoplankton)		
1 qt. plastic jar	1	temp. (ATP) filter→scrape →tris→ 1 oz. bottle		
2 liter (H)	1*	filter immed. onto 0.45 GF filter-freeze in dark (Black)		
1/2 liter (P)	1	4°C, dark (biomass) (Black)		
1 gal. polycarbonate	1#	4°C, dark (AGP) (Black)		
2 liter (H)	1#	4°C, dark, H_2SO_4 to pH <2 (AGP) (Red)		
1/4 liter (C)	1#	filter 0.45 washed filter HCl to pH <3 freeze (Green)		

WATER QUALITY SAMPLES F13

Sample Depth (m) ________ Surface ___ Mid-depth ___ Bottom ___

Sample Container	Req'd	Preservation Technique	Container Number(s)	
1 liter (Q)	1*	4°C, Dark (Black)		
2 liter (H)	1*or2##	4°C, H_2SO_4 to pH <2 (Red)		
1/2 liter (P)	1*	HNO_3 to pH <2 (Blue)		
1/4 liter (C)	1*	4°C, HCl to pH <3, filter on site (wf), freeze (Green)		
1/4 liter (C)	1*	4°C, H_2SO_4 to pH <2, filter on site (Red) (GFF pretreat)		
1/2 liter (P)	1*	HNO_3 to pH <2, filter on site** (Blue)		
1 liter (Q)	1*	2 ml 2 N ZnAc/l (Brown)		
1/2 liter (P)	1##	HNO_3 to pH <2 (Blue)		
2 liter (H)	1##	4°C		

BACTERIOLOGICAL SAMPLES

Container Number(s) ________ ________ ________ ________

COMMENTS: *2 if duplicate station

**HCl to pH 1 if DO <1

#AGP Station only

##Split sample station only

an epoxy coated Ponar™ dredge (standard size, 9"/side) from each of four equally spaced locations across the river channel. Each lake station sediment sample was composited from approximately equal volumes of each of four separate grab samples, obtained with an epoxy coated Ponar™ dredge, from each of four locations, 90-degrees apart, along the circumference of an imaginary 20-foot diameter circle.

Corbicula Sampling

Corbicula specimens were taken where available utilizing an epoxy coated Ponar™ dredge (standard size, 9"/side). A minimum of four grab sampling attempts were made at each of those stations specified in Table 3. Samples were taken at four equally spaced locations across the channel at river stations and at four locations, 90-degrees apart, along an imaginary 20-foot diameter circle at lake stations. Recovered specimens were washed prior to storage as specified in Table 4.

Other Field Sampling & Processing

Field sampling and processing methods for the algal growth potential test, phytoplankton, zooplankton, ATP, macroinvertebrates and macrophytes are discussed in subsequent sections of this report.

Storage and Shipment of Samples

All preserved water and sediment samples were stored as specified in Table 4 in coolers filled either with ice to 4°C or with dry ice for freezing. At the end of each sampling day, the samples were sent to the Water and Air Research, Inc. (WAR) lab in Gainesville via special courier, along with copies of the field notes from that day.

Laboratory Procedures

Chemical Parameters

Sample Integrity. The integrity of all samples was maintained from the moment they were received in the laboratory until the data were reported and approved. All samples were "logged in" immediately upon receipt. When feasible, preservation was also checked. Project name, parameters, sample number, and date received were recorded both in the log and on appropriate forms in the project notebook. A control sheet was used to monitor work in progress. Samples were stored as specified according to the analyses to be run, normally either frozen or at 4°C.

Samples sent to outside laboratories were also recorded as above. Date and shipping information were recorded in the project notebook. Documentation of shipment was preserved as part of the permanent laboratory record. A tabulation of bottle numbers accompanied any samples so sent. Spiked samples and duplicated samples were routinely included in the shipments as a quality control check. These control samples were not specifically identified to the subcontractor.

Analytical Methods. Chemical analyses of water, sediment, and mollusk tissue as well as bacteriological analyses of water strictly adhered to the procedures listed in Table 4. Any deviation from these specifications has been noted with the reported data.

Notes and Record Keeping. When the samples reached the laboratory, they were "logged in" immediately by date in the permanent laboratory record in a color-coded permanent project notebook. Each station was given a unique four-digit laboratory number. All notes, analysis sheets, printouts and any other lab information relative to the Lake Seminole project were also kept in the project notebook. Verification of the bottle numbers for each station by comparison with the field record was the responsibility of the lab supervisor. A tabulation of sample identification by laboratory code number, bottle number, and station number including the date sampled and the date received became a part of the permanent record. A table was made to monitor the status of the analytical effort on a given set of samples.

Analytical data sheets by analysis were prepared for groups and individual samples. These were marked with the sample identification number(s), project, date sampled, date received, and date analyzed. All analytical readings and calculations appear on these data sheets. These were turned in daily and filed in the appropriate project notebook. Any unusual appearance of the samples or results was recorded on the data sheets. These data became a part of the permanent record. All data sheets were initialed by the analyst and calculator. Recorder printouts such as autoanalyzer charts or fluorometer records were labeled according to parameter, project, date sampled and date analyzed and accompanied the data sheets which have been kept as a part of the permanent record in the project notebooks.

Sub-contracted Analyses. The list of analyses given in Table 5 were sub-contracted. Liason with each sub-contractor assured that the methods specified in Table 4 were followed in every case. Sample integrity records were maintained and spiked and duplicated samples were included in each shipment to provide quality control independent of the sub-contractor. Reports of results including quality control results were entered as a part of the permanent laboratory record. The laboratory supervisor was responsible for monitoring the analytical performance of each sub-contractor.

TABLE 5

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY SUBCONTRACTED WATER QUALITY ANALYSES FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

Parameter	Subcontractor	Transmission Method
Composite Samples		
Chlorophyll a, b, & c	TSI	Bus
Water Samples		
TOC	CH2M-Hill	Courier
Dissolved Organic Carbon	CH2M-Hill	Courier
Calcium, Magnesium, Sodium and Potassium	TSI	
Sediment Samples		
Mechanical Analysis	TSI	Bus
TOC	CH2M-Hill	Courier
Mercury	TSI	Bus
Arsenic	TSI	Bus
Chlorinated Hydrocarbons, Pesticides	TSI	Bus
Mollusk Tissue		
All Parameters	TSI	Bus
Zooplankton		
Identification of all Taxa	TA	Courier

NOTES:

TSI - Technical Services, Inc., 103-7 Stockton Street, Jacksonville, Florida, 32201
CH2M-Hill - CH2M-Hill, Southeast, Environmental Laboratories, 7201 N.W. 11th Place, Gainesville, Florida, 32602
TA - Taxonomic Associates, P.O. Box 12379, University Station, Gainesville, Florida, 32604

Calculation and Reporting of Data. Calculation of the results of analyses was accomplished as soon as possible following completion of the "hands on" work to facilitate assessment of the control exercised by standards, replicates, and spiked samples. This assessment was the responsibility of the laboratory supervisor. All calculations were shown on the analysis sheets as part of the permanent laboratory record.

Checking calculations either by the analyst or the data calculator was standard practice. It was the responsibility of the laboratory supervisor to insure that all data reported had been calculated correctly.

"In-house" data tabulations and data were stored in the project notebooks as a part of the permanent record. Notes pertaining to field data, anomalous results, or deviations from standard methods were appended to finished reports. The accuracy of such reports was the responsibility of the laboratory supervisor.

For each cycle, the complete laboratory data base was tabulated on computer coding sheets and reviewed. These sheets were turned over to the project manager for entry into the data storage-retrieval system. A xerox copy of these sheets was kept in the project notebook as a part of the permanent laboratory record.

Quality Control Assurance

The following paragraphs describe the methods and procedures employed to assure the accuracy of the field measurements and laboratory chemical water analyses results. Short cuts were not permitted and any abnormalities were brought to the attention of the laboratory supervisor immediately. This included any analytical or safety abnormality as well as instrumental malfunction, or problems in replication or spike recovery.

Calibration Checks. These checks were done before using any instrument and the calibration recorded on the analytical data sheet. Daily logs of oven, refrigerator, and incubator temperatures were maintained with this equipment.

Gravimetric Analysis. Accuracy of analytical balances was monitored with a standard weight set (coins) and results were recorded on log sheets. Calibration checks and routine maintenance is done biannually by an established contractor.

Titrimetric Analyses. The method was checked against a standard solution daily. The results were recorded on the data sheet and as part of the accuracy control data.

Colorimetric Analyses. A standard curve of at least 3 points was run daily. More points were run if required. The results of standards were recorded on the data sheet and also as a part of the accuracy record.

Instrumental Analyses. The Atomic Absorption Spectrophotometer and the Technicon Autoanalyzer II had daily calibration curves constructed. Instrument settings were recorded on the data sheet and as a part of the instrument record.

Fluroide electrodes, pH meters, conductivity meters, and turbidimeters were calibrated as necessary and the calibration was checked after every 10 samples. The notation was entered on the data sheet that the calibration was made.

The laboratory deionized water supply's resistance was continuously monitored and maintained at 500,000 OHMS. Deionized water blanks were always included in analyses to control possible contamination from this source.

Precision and Accuracy Control. Shewhart type (USEPA, 1979) precision and accuracy control charts were maintained for all routine laboratory analyses. These charts are updated yearly using the entire data base generated by the laboratory for the preceding year's work. These charts were maintained as a permanent laboratory record.

In this study precision was also monitored by analysis of duplicate samples. A minimum of 10 percent of the total number of samples obtained during a given sampling cycle were split in the field by filling two separate containers from the same grab sample. In general, this was achieved by sampling one station in duplicate on each sampling day. One of this pair of samples was analyzed as the first sample of an analysis run; the other was run as the last analysis. An additional sample was duplicated within a given analytical set. The difference between the field duplicates was compared with the control limits on the quality control chart. If the difference exceeded the warning limits the difference between the in-house duplicate was compared. If the in-house and field differences exceeded the warning limits the whole set of analyses was repeated. If the field duplicates exceeded the warning but the in-house duplicate was in control, each of the field duplicates was run again to verify that the difference was due to sampling rather than analytical procedure.

The results of the field duplicated samples was included in each progress report and as Appendix E in this report. The sample duplicated in-house was recorded on the precision chart.

Daily monitoring of the accuracy of the analytical work was accomplished by comparing the results of recovery of known spikes from replicated spiked samples. One sample in every 10 was spiked and at least one spiked duplicated sample was included on each sample set. The difference between the recovered value for the spike versus the normal spike value was compared with the accuracy chart warning limit. If this value exceeded the warning limits the analysis for the set of samples was repeated. The results of the spike recoveries were recorded on the accuracy chart.

Spiked sample analyses were run for:
- Fluoride
- All nitrogen forms
- All phosphorus forms
- Sulfate
- Chlorides
- All metals.

In addition, two samples each sampling cycle were spiked in the field with iron, manganese, and zinc. Samples for dissolved metals for these same stations were spiked with iron and manganese. The spiked samples for total metals were split with the South Atlantic Division Laboratory (SAD). Results of these metal spike recoveries were included in each progress report.

In addition to the in-house accuracy control, quality control assurance was monitored by splitting two samples per cycle with the SAD laboratory.

Reference Samples. Environmental Protection Agency reference samples for chlorophyll a, b, and c, nutrients, BOD, major ions, and trace metals were analyzed during cycle 3 and the results compared to established values.

Bacteriological Quality Control. Control of the quality of bacteriological media was maintained by careful attention to holding times and conditions for prepared m-fecal coliform broth (96 hours at 4°C) and KF-streptococcus agar (one month at 4°C). Sterility of sample bottles and equipment was assured by monitoring autoclaving time and temperature. A heat sensitive test strip was included in each set of autoclaved material.

In the field, attention was paid to meeting holding times for bacteriological samples. Incubator temperatures were carefully monitored. One sample each day was analyzed in duplicate.

Algal Growth Potential Test Methodology

The algal assay procedure, bottle test, was performed on water

collected from 11 selected stations (06, 07, 09, 10, 11, 12, 13, 14, 15, 16 and 18) during sampling cycles 1 (4/17-21/1978), 3 (7/17-20/1978) and 5 (9/25-27/1978) in accordance with procedures specified in Miller et al. 1978. Algal growth response was indirectly measured as ash-free dry weight after 12 and 14 days incubation using a Coulter Model Z_f particle counter equipped with a near cell volume computer. The counter and cell volume computer were calibrated in accordance with the manufacturer's procedures using a 4.59 μ diameter organic particle obtained from Coulter Electronics, Inc. All counts were run using a lower threshold of 10 μm^3 to exclude debris. Calibration of the mean cell volume computer was performed each time the instrument was used. Procedures for calibrating Coulter type electronic particle counters are also included in Miller et al. 1978. A gravimetric factor to convert particle volume to ash-free dry weight was determined to be 2.8×10^{-7} μg μm^{-3} for *Selenastrum capricornutum* Printz under the culture conditions used. Five counted, sized suspensions were washed three times by centrifugation, transferred to tared crucible cups and dried at 70°C overnight. After weighing the dried algae, the ash content was determined after heating the material at 500°C for 1 hour. A subculture of this organism supplied from the Pacific Northwest Environmental Research Laboratory (EPA) on 4/4/78, was maintained for use during each of the algal assays.

Depth integrated samples from the euphotic zone in quiescent waters (lake stations) or from the entire water column in more turbulent waters (river stations) were collected as specified earlier. All samples were processed within three days by an autoclaving-filtration procedure to assess the amount of algal biomass which could be grown from all nutrients in the water, including those contained in filterable organisms and other particulate matter (Miller et al. 1978). Background chemical analyses for total Kjeldahl nitrogen, ammonia nitrogen, nitrite plus nitrate nitrogen, as well as dissolved ortho-phosphate and total phosphorus were performed on the samples before and after autoclaving.

The experimental design shown in Table 6 was followed to determine the nutrient availability, the primary growth limiting nutrient(s) (nitrogen, phosphorus, or trace metals) and to determine the presence of toxic substances. This procedure, outlined in Miller et al. 1978, compares the relative growth of the test alga in water spiked according to Table 6 to the growth response of the alga in unspiked lake water. Each combination as well as the lake water control was set up in triplicate for each station.

Phytoplankton Methodology

Phytoplankton was collected from a depth integrated raw water sample from the euphotic zone in quiescent waters (lake stations) or from the entire water column in more turbulent waters (river

TABLE 6

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY BASIC EXPERIMENTAL DESIGN USED TO DEFINE NUTRIENT LIMITATIONS AND ALGAL GROWTH POTENTIAL FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

Lake water (not spiked)

Lake water + 0.05 mg P l^{-1} as K_2HPO_4

Lake water + 1.00 mg N l^{-1} as $NaNO_3$

Lake water + 0.05 mg P l^{-1} + 1.00 mg N l^{-1}

Lake water + 1.00 mg Na_2 EDTA l^{-1} as Disodium (Ethylenedinitrilo) tetraacetate

Lake water + 0.05 mg P l^{-1} + 1.00 mg Na_2 EDTA l^{-1}

Lake water + 1.00 mg N l^{-1} + 1.00 mg Na_2 EDTA l^{-1}

Lake water + 0.05 mg P l^{-1} + 1.00 mg N^{-1} + 1.00 mg Na_2 EDTA l^{-1}

stations). The water sample was depth integrated with a Van Dorn™ sampler just below the surface and at one meter depth intervals until the lower limit was reached. If the euphotic zone in quiescent waters or impoundment depth in more turbulent waters was over 7 meters deep, eight samples beginning at the subsurface were equally spaced over the required sampling depth. These were composited and a 1 liter aliquot for the station withdrawn, placed into a pre-numbered 1 liter plastic jar, and preserved with 5 percent buffered formalin (neutralized with sodium tetraborate to a pH of 7.0 to 7.3). The collection number, site, date, and time of collection were recorded for each station in a field notebook along with weather (cloud cover, wind direction, and intensity) and water conditions (surface waves, color, turbidity, and depth) and any unusual observations during sampling.

In the laboratory, the field data were transferred to a permanent log book and the samples checked against this record. Phytoplankton analysis was made by the Utermöhl (1931, 1958) method. Each sample was resuspended with a magnetic stirrer and a known aliquot (usually 20 or 40 mls) was transferred into a standardized plankton sedimentation chamber with a known settling area of 397.6 mm^2. After 24 hours of settling, the chamber was placed on a Zeiss Invertoscope "D" microscope (magnification to 1000X), and a minimum of 300 organisms (sampling cycles 1, 2 and 3) or 150 organisms (sampling cycles 4, 5 and 6) were enumerated for each sample. Cell counts were made by randomly selecting microscope fields along at least two perpendicular transects of the chamber and counting all cells within each field. For colonies and filaments consisting of a large number of cells, 1/4 or 1/2 of the colony or filament was counted and this resultant number multiplied to obtain the number of cells for the entire colony or filament. Empty algal cells or diatom frustules were not included in the counts. Identified cells were recorded on standardized bench sheets and later converted to number of cells per milliliter for each taxon in the water sample using the following conversion equation:

$$\text{Cells/ml} = \frac{(CA)}{(FMV)}$$

where,

C = number of cells counted;
A = area of bottom of the counting chamber (397.6 mm^2);
F = number of fields counted;
M = area of one microscope field (0.038 mm^2); and
V = volume of aliquot settled.

All organisms were separated and identified to species where possible. The following major standard taxonomic references were used for identification: Heurck, 1896; Hustedt, 1927-1930, 1930, 1931-1959, 1949, 1961-1966; Hanna, 1933; Huber-Pestalozzi and Hustedt, 1942; Smith, 1950; Prescott, 1951; Drouet and Dailey, 1956; Bourrelly, 1966-1970; Patrick and Reimer, 1966, 1975; VanLandingham, 1967-1979;

Drout, 1968, 1973; Whitford and Schumacher, 1973. Other minor references too numerous to list were also used.

Since the classification of diatoms is based primarily on the shape and markings of the cell wall, critical identifications can only be done if the diatoms are cleaned (all organic matter removed); thereby leaving only the silica cell walls. Diatom identification was facilitated by cleaning 30 ml of the initial samples using the hydrogen peroxide method (Werff, 1953; Patrick and Reimer, 1966). This involved placing the aliquot in a 2,000 ml beaker and adding approximately 50 ml of 30 percent hydrogen peroxide. A small amount (0.1 - 0.2 g) of potassium dichromate was added (resulting in a purple solution) and in a few moments an exothermic reaction began. This resulted in a violent heating and boiling of the mixture, which oxidized all of the organic matter within the solution, including that contained within the diatoms.

Upon completion of this aqueous combustion reaction, the solution turned yellow and the mixture was then transferred to a 300 ml tall beaker, filled with distilled water, and allowed to settle 6 - 24 hours. The diatomaceous material settled to the bottom and formed a delicate flocculent layer. The sample was then decanted at least 3 times to remove the chemicals (using distilled water to refill the beaker after each decanting). The cleaned diatoms were then poured into a storage vial and enough alcohol added to make at least a 30 percent solution to inhibit growth of fungi.

Permanent slides were made of the cleaned diatoms with Hyrax mounting medium. Clean #1 cover slips (22 mm sq) were flooded with water containing different concentrations of the suspended diatoms and allowed to air dry at room temperature or on a low temperature hot plate. When dry, the coverslip was heated to 500°C for 5 - 10 minutes and then inverted into a drop of Hyrax on a slide. The slide was then heated for a few minutes at 300 - 400°C until the Hyrax stopped bubbling under the coverslip. This allowed time for the penetration of the diatom frustules by the Hyrax and the evaporation of the solvent. The slide was then allowed to cool while pressing the coverslip down so that it would lie flat on the slide. The Hyrax hardened rapidly and the excess along the edges was scraped off with a razor blade. The slide was then wiped clean with acetone. Initial diatom identifications were made from these slides. If identification difficulties arose in other samples during the study period, portions of these samples were also cleaned and permanent slides made to facilitate diatom identifications.

Voucher specimens of difficult taxa were sent to Dr. C. W. Reimer, Academy of Natural Science of Philadelphia (diatoms) and Dr. J. B. Lackey, Professor Emeritus, University of Florida (green and blue-green algae) for taxonomic verification.

Zooplankton Methodology

Semi-quantitative zooplankton samples were collected from quiescent waters (lake stations) with a single vertical tow through the water column by using a Wisconsin style 0.5 meter diameter, 80 micron mesh weighted plankton net with an attached flowmeter. The tow was performed at a uniform speed of approximately 0.5 meter per second to minimize avoidance reactions and sampling bias. Zooplankton were collected from turbulent waters by taking an oblique tow from near the bottom to the surface while letting the boat drift with the river flow to maintain a tow angle as nearly vertical as possible. The tow angle, time, length of rope let out, and flowmeter readings were recorded. Zooplankton samples were preserved in a final concentration of 5 percent buffered formalin with Rose Bengal added in pre-numbered plastic bottles. The collection number, site, date, and time of collection were recorded for each station in a field notebook, along with weather (cloud cover, wind direction, and intensity) and water conditions (wave height, color, turbidity, and depth) and any unusual observations during sampling.

In the laboratory, the field data were transferred to a permanent log book and the samples were checked against this record. Zooplankton were identified on a compound microscope with a magnification to 400X. They were then enumerated by placing a thoroughly mixed aliquot in a Wards zooplankton counting wheel and examining it at a magnification of 20 - 60X under a stereoscopic microscope. The aliquot size (taken with a Henson-Stempel pipet) varied from 1 - 5 ml depending on the densities of organisms and detritus. All zooplankton within the chamber were identified to genus wherever practicable and enumerated except for the two dominant genera which were identified to species.

The principal taxonomic references utilized were Edmondson, 1959; Brooks, 1957; Deevey & Deevey, 1971; Marsh, 1929; and Voight, 1956.

The number of each taxon in the sample was converted and reported as number per liter using the following conversion equations:

$$\text{Number of organisms/l} = \frac{AC}{BV}$$

where,

C = organism count (raw data)
A = volume of the concentrated sample;
V = volume of water passed through the plankton net; and
B = volume of the examined aliquot.

The total volume (V) was calculated as a function of the length of the water column which the net passed through:

$$V = \pi r^2 l = (3.14)(0.25\ m)^2 l = l\ (0.196\ m^2)$$

with l being the length of the water column based on the flowmeter value or the length of rope let out if the flowmeter malfunctioned.

ATP Test Methodology

Sampling and Sample Preparation

At stations 01 through 19, 200 ml or more of water from the depth integrated water sample were filtered through a 0.45 μm membrane filter (Millipore). Upon completion of the filtration, the vacuum was broken just as the last of the water passed through the filter, and the filter was quickly transferred to a 150-ml Pyrex beaker containing 10 ml of boiling 0.02 M Tris buffer. The filter was placed upside down into the Tris and heated for 5 to 10 minutes at 100°C in a water bath. The beaker was then removed from the water bath, the filter scraped with a plastic policeman to loosen the filtrate from the filter into the Tris, and replaced in the boiling water for 5 min. The beaker was then removed from the water bath and cooled rapidly. The filter was held against the side of the beaker and any remaining filtrate scraped off with a plastic policeman. The filter was then discarded. The sample was then transferred to a 1-oz Nalgene (plastic) screw cap bottle, labeled with the bottle # (T___) and volume (mls) filtered, and frozen at -20°C (dry ice in the field).

When the sample was ready to be analyzed, the contents of the bottle were thawed, the sample mixed and then transferred to a centrifuge tube. The volume of sample was recorded and approximately half of the sample was transferred back to the original container (in case of errors such that a redetermination was necessary) and the remainder centrifuged. The tubes were removed from the centrifuge and the supernatant poured into a clean, labeled scintillation vial for transport to the University of Florida for determinations.

Standardization Curve

An ATP standard stock solution was prepared by weighing 119.3 mg of crystalline adenosine 5' - triphosphate-disodium salt using ATP-free glassware. The ATP was dissolved in 100 ml of fresh 0.02 M Tris buffer containing 29.2 mg of EDTA and 120 mg of $MgSO_4$ (resulting concentration of 1 mg of ATP/ml). This was dispensed in 5.0 ml aliquots in 1-oz Nalgene bottles and stored at -20°C until required.

One ATP stock bottle was thawed and 1.0 ml of the ATP stock solution containing 1 mg of ATP/ml was pipetted into a 1-liter

volumetric flask and brought up to volume with 0.02 M Tris buffer (or pipet 1 ml of stock solution into 100 ml of Tris, mix, and pipet 1 ml of this dilution into 9 ml of Tris to result in the same dilution). This solution contained 1.00 μg ATP/ml. The following serial dilutions were then made:

1.00×10^{-1} μg ATP/ml
1.00×10^{-2} μg ATP/ml
1.00×10^{-3} μg ATP/ml
1.00×10^{-4} μg ATP ml.

The calibration curve was determined by making a minimum of 3 replicate determinations of each of the serial dilutions.

Reagents

Tris Buffer: (0.02 M) (Tris (Hydroxymethyl) Aminomethane) - Dissolve 2.5 g of the buffer crystals in 1 liter of deionized water. Bring to pH 7.75 using HCl (pH meter). Sterilize by autoclaving for 30 min. at 121°C, 15 psi (103 kPa) pressure, and store refrigerated in stoppered flasks.

FLE-50: Firefly Lantern Extract (Luciferase/Luciferin Reaction Mixture) - Reconstitute by adding 35 ml (or 37.5 ml) of low response water to one vial of extract. The luciferase/luciferin reaction mixture must be mixed gently without shaking. Allow to stand at room temperature (23 - 26°C) for one hour. Filter through Whatman #1 filter paper and store in an ice bath for 3 hours before use. Use enzyme preparation within 8 hours of preparation.

Hydrochloric Acid (0.2 N): Add 17.0 ml of HCl (sp. gr. 1.19) to a 1-liter volumetric and bring to volume with water.

ATP-Free Glassware: Rinse chemically clean glassware three times with 0.2 N HCl, rinse three times with Tris buffer, and rinse three times with low-response water.

Low-response Water: Sterile, deionized, ATP-free water may be prepared by treatment in a suitable system involving carbon treatment with deionization, filtration, glass distillation, or sterilization by autoclaving and stored under refrigeration in stoppered flasks.

Determination

One ml of reconstituted firefly lantern extract (35.0 ml low response water/vial of extract) was pipetted into a scintillation vial and the background light emission read. Using a Packard Tri-Carb Model 2002 liquid scintillation spectrometer (gain set at 53, window opening of 50 to 1,000, and set in a repeat count mode, with each

sequence) the normal background emission was 10 to 20 counts or less in the 6-sec counting interval.

Exactly 0.5 ml of the ATP standard or sample extract was added using the micropipette syringe (with new tip each time) and the vial swirled to thoroughly mix the contents. Eleven seconds after the sample addition to the firefly extract, the vial was inserted into the counting chamber and the counting sequence begun. Two samples from the beginning of the run were repeated at the end of each run to determine repeatability and check for decay of the firefly lantern extract during the run. For each cycle in Phase I, samples were analyzed for each of the 19 stations except during cycle 6 in November when stations 12 & 19 could not be sampled due to low water levels and boat problems.

Macroinvertebrate Methodology

Benthic Natural Substrates

Benthic macroinvertebrate grab samples were collected at all nineteen locations. Sampling frequency was as outlined in Table 2. At the riverine stations, one sample was collected in the thalweg and one near each river bank. At lake stations 08, 09, 10, 11 and 13 samples were collected from three locations, taken 120 degrees apart, along an imaginary 20-foot diameter circle.

Benthic macroinvertebrates were collected with a standard size (9"/side) Ponar^{TM} dredge. The dredge was lowered from the side of the boat, using a boom and power winch, slowly enough that a minimal "shock wave" was created so as not to disturb the benthos. Once the dredge touched bottom, the closing mechanism was immediately tripped and the dredge quickly raised to the surface. The dredge was then placed in a sieve bucket (US Standard No. 30 mesh) and the sample washed out with a squirt bottle filled with lake (or river) water to reduce the sample volume. The washed sample was then placed in a pre-numbered bottle (wide mouth, plastic, 1-pint or 1-quart).

Upon completion of all replicate sampling at a given station, buffered formalin preservative was added to a concentration of 5-10 percent, depending upon the quantity of detritus present. Rose Bengal was added as an organism stain to facilitate sorting, being added prior to preservation in order that the organisms' respiratory processes increased the amount of staining. The rose bengal was applied as a dry crystal, in a quantity sufficient to stain the sample a dark red, this quantity being variable according to sample size and the amount of detritus in the sample.

Upon return to the lab, the samples were shelved in an orderly manner and their numbers recorded and checked against the numbers in the field notes. Samples which were accidentally misrecorded, or which were otherwise in error, were discarded.

In the laboratory, each sample was carefully washed in a US Standard No. 30 mesh sieve (or smaller, if organism loss was significant) that was partially immersed in a large white plastic pan. This removed formalin, excess Rose Bengal stain, and the remaining silt and clay. The sample was then placed, in manageable aliquots, in a white enamel pan for removal of organisms (sorting). Organisms, were placed in 5 milliliter vials, in 95 percent ethanol. Each vial was labeled with a code representing the project, collection date, type of substrate sampled, collection location, and replicate bottle number. For example:

LSN-3-18E

Project Code and Substrate --	Collection Date --	Station No.
(Lake Seminole, Natural Substrate)	(third cycle: July 1978)	(18 East Bank)

A vial with ethanol was weighed, the sampled organisms were then placed in the vial, and the vial was re-weighed. The difference between the two values was considered "wet weight" biomass. These numbers are high, however, due to the introduction of extra ethanol when inserting the organisms. Limited experiments suggesting errors as high as 25-33 percent were found at stations with relatively low biomass.

Organisms were identified with an American Optical Stereoscopic Microscope (7X to 80X) and a Swift Trinocular Microscope (40X to 400X). Taxonomic references used were Beck (1962), Beck and Beck (1969a and b; 1970), Curry (1958), Hilsenhoff (1975), Mason (1973), Parrish (1968), Roback (1963, 1969), Brinkhurst and Jamieson (1971), Brown (1972), Edmunds, et al. (1976), Holsinger (1972), Thompson (1968), Usinger (1956), Wiggins (1977), and Saether (1977). Taxonomically difficult and ecologically important species were identified or verified by experts in their respective fields: William Beck, Florida A&M University, for Chironomidae and Michael Loden, Louisiana State University for Oligochaeta. Other authorities were consulted for the less frequent taxa, and for specific groups within the Insecta (such as Dr. Minton J. Westfall, University of Florida, for Odonata).

The Chironomidae and Oligochaeta were grouped under low magnification and representative specimens were selected for microslide mounts, from which the identifications were made. Only one organism was mounted per microslide. Chironomids were mounted in polyvinyllactophenol, which contains a clearing agent and makes excellent semipermanent slides. Oligochaetes were permanently mounted in Coverbond™, which does not contain a clearing agent. Organisms can be removed and remounted, if necessary, with either of these mounting media.

The Shannon-Weaver Species Diversity Index, $\overline{H}$ (Odum, 1971) was calculated using the following expression:

$$\overline{H} = \sum_{i=1}^{t} \left[\frac{n_i}{N} \log_2 \left(\frac{n_i}{N} \right) \right]$$

where n_i = total number of organisms present as taxon <u>i</u>

$N = \sum_{i=1}^{t} n_i$ = total number of organisms present in the sample

t = number of taxa present in the sample

$\overline{H}$ ranges from a minimum of 0.0, occurring when all organisms belong to the same taxon (no diversity), to a maximum of $\log_2 N$, occurring where each organism present belongs to a unique taxon (maximum diversity).

<u>Evenness (e)</u>

If the organisms of a sample are uniformly distributed among the taxa present, the Shannon-Weaver Index assumes the value, ln t, a condition of perfect evenness in the apportionment of individuals among species. The Index of Evenness, e (Odum, 1971) was used to express the actual Shannon-Weaver Index as a fraction of this "ideal" value:

$$e = \frac{\overline{H}_e}{\ln(t)} \quad \text{(defined for } t > 1\text{)}$$

where $\overline{H}_e$ = actual Shannon-Weaver Species Diversity Index

t = number of taxa present in the sample

Evenness ranges from 0.0 (minimum evenness) to 1.0 (perfect evenness), and the calculated values are independent of the logarithmic base.

All samples were retained for reference until being sent to the Mobile District COE office at the end of the study. A few chironomid larvae and oligochaetes were donated to Mr. William Beck, Jr., and Dr. Michael Loden, for their taxonomic value.

Hester-Dendy Artificial Substrates

The Hester-Dendy sampler used was that which is recommended for EPA biologists. It consists of fourteen 7.5-cm diameter plates, and twenty-four 2.5-cm diameter spacers, constructed of 0.625-cm thick tempered fiberboard, strung together on a 25-cm eyebolt so that there are 8 single spaces, one double space, two triple spaces and two quadruple spaces between the plates. This sampler has an effective surface area of 0.12 square meter.

Artificial substrates were emplaced at all stations except 08, 10, and 17. The samplers were attached to marker buoys and incubated for a period of six weeks. The sampling frequency is outlined in Table 2. Each sampler was collected by raising it from the water and quickly placing it into a cloth bag, which was then preserved in a 5-gallon Roper^{TM} bucket containing a 10 percent buffered formalin solution. These samplers were not re-used, as it was very difficult to remove the formalin from the fiberboard.

In the laboratory, the cloth bag was everted into a US Standard No. 30 mesh sieve placed in a white enamel pan. The sampler was then removed and disassembled. The bag, sampler, and organisms were rinsed to remove the formalin and accumulated sediments. All organisms were removed and placed in vials containing 95 percent ethanol. Each vial was labeled and the organisms identified as outlined in the previous section.

Shannon-Weaver and Evenness values for the Hester-Dendy macroinvertebrates were calculated as described above.

Macrophytes

Aquatic macrophytes in Lake Seminole were surveyed in June and September, 1978. The macrophyte surveys were conducted to map their extent, to obtain pressed specimens, to collect reference photographs, to develop species lists, and to determine their nuisance potential.

The reservoir was surveyed from a flat-bottomed boat for 3-4 days during each of the two field trips. Included were personnel from WAR and USACOE personnel at Lake Seminole. The vegetation map was

constructed from notes collected during field inspections. Specimens of selected "uncommon to rare" species were collected when in flower. These were pressed and duplicate herbarium sheets were prepared for delivery to the USACOE personnel at Mobile, AL. Reference photographs were taken in 35 mm color slide form and are being held at WAR. Species identifications and lists were made *in situ* by survey personnel. The primary taxonomic references were Radford, *et al.* (1964), Long and Lakela (1971), and Fassett (1940). The nuisance potential of aquatic macrophytes in the lake was determined by interviews with USACOE biologists, local residents, USACOE publications (USACOE; 1961, 1971, 1972, 1973, 1974, 1975, 1977a, 1977b, 1978), and by inspection.

The vegetation map was very difficult to construct for several reasons. First, appropriate aerial photography, which is the single most important tool for mapping vegetation, was unavailable. Second, the USGS Quadrangle maps, which were relied upon in lieu of aerial photos, are incorrect in many places, especially concerning the reservoir islands. Third, vegetative diversity is very high. And fourth, mapping the dense periphyton mats occurring in the shallow waters of the Flint River portion of the reservoir is dependent on the use of bottom topography maps, which were unavailable to us.

Several compromises were made as a result of these problems. Shoreline vegetation, usually a mix of several to many species, was not shown in many places since it occurs in too narrow a band to show in the chosen map scale. This problem was most pronounced with the fringe of giant cutgrass around many islands and in the Chattahoochee River. Also, small patches of invading nuisance species, such as *Egeria* at the Georgia Ranger Station, are too small to show up in the chosen map scale. The periphyton mats are not shown at all.

RESULTS AND DISCUSSION

The following discussion is intended to summarize the data shown in Appendices A through M and highlight the trends and water quality observed during the six sampling cycles of Phase I of the Lake Seminole Water Quality Management Study.

Stream Flows

Data was obtained from the United States Geological Survey (USGS) in Doraville, Georgia, for the Flint River at Newton, Georgia (USGS Station 02353000), the Chattahoochee River through Andrews Lock and Dam (USGS Station 02343801) and Spring Creek near Iron City, Georgia (USGS Station 02357000). The locations of the flow gaging stations are shown on the Map Coverage Index of Figure 1. Data for the flow through Jim Woodruff Lock and Dam were obtained from the U.S. Army Corps of Engineers, Mobile District. The data for Spring Creek and the Flint River represent stream flows outside the actual study area.

A summary of the available stream flow data is given in Appendix A. Monthly average stream flows for which there are data are shown for the Chattahoochee and Flint Rivers, Spring Creek and the flow through Jim Woodruff Lock and Dam. Daily averages for one week prior to and the week of each sampling cycle are also shown. No daily averages were available for Spring Creek.

In general, the data shows wide variations in flow from day to day on the Chattahoochee River due to fluctuations in discharge from Andrews Lock and Dam. The Flint River and Spring Creek are not subject to these wide daily variations. Based on monthly average flows, the Chattahoochee accounted for approximately 60 to 80% of the total flow reaching Lake Seminole.

The period of highest flow occurred during sampling cycle 2 in May. Monthly average flows for May, 1978 were 521 m^3/sec at Andrews Lock and Dam on the Chattahoochee, 275 m^3/sec on the Flint at Newton, Georgia, and 1005 m^3/sec through Jim Woodruff. The period of least flow was November with average flows of 129 m^3/sec on the Chattahoochee, 60 m^3/sec on the Flint and 221 m^3/sec through Jim Woodruff. It should be noted that the pool elevation in Lake Seminole was at the lowest level in its history during the sixth sampling cycle in November, 1978.

Water Quality Data

Complete in situ and laboratory water quality results are given in Appendices C and D respectively. In general, water temperatures

were highest during cycle 3 in July. The mean temperature for this cycle for Chattahoochee River stations (01,02,03,04,05,06) was 28.5°C; for Flint River stations (16 and 17), 27°C; for lake stations (08,09, 10,11,13,15), 30.2°C; and for stations on the Apalachicola River, 29°C. Station 12, on a wide, shallow, relatively stagnant arm of the reservoir had a water temperature of 30°C during this cycle and station 14 on Spring Creek was 28.5°C. Minimum temperatures were encountered during sampling cycle 6 in November with temperatures at all sites of 18°C - 19°C. At no time during this study was a well defined thermocline evident at any of the lake stations sampled due probably to the shallowness of the reservoir and wind mixing of it. However, during cycle 2 in June and cycle 3 in July, a slight (i.e. 1-2°C) surface warming was apparent at most lake stations. No significant lateral thermal variation was observed during either the first or fourth sampling cycles in April and August, respectively.

The most severe dissolved oxygen depletion occurred during cycle 3 due probably to reduced mixing and increased temperature. Dissolved oxygen during this cycle ranged from 9.9 mg/l one meter below the surface at station 15 down to 3.3 mg/l at a depth of 6.0 meters at station 11 just upstream of the dam (see Figure 1). D.O. levels below the dam on the Apalachicola River were in the 6.0-9.0 mg/l range at all times. No anaerobic conditions were encountered at any sampling sites during any of the sampling cycles. Vertical profiles and D.O. isopleths for cycles 2, 3 and 4 showing the variation in D.O. with depth and cross-section respectively, at a given site are shown in Appendix F. In general, the reservoir stations exhibited a decrease in D.O. with depth during the late summer months; however a marked thermocline did not develop and mixing from top to bottom was not inhibited. No significant lateral or vertical variation in dissolved oxygen was evident at any of the river stations during either the first or fourth sampling cycles in April and August, respectively, with the exception of station 14 in Spring Creek during August. The variation found at this station was probably due to the lack of current and mixing.

At station 1 (just below the George W. Andrews Lock & Dam) the D.O. ranged from above 9.0 in both April and November to a low of 7.0 at midstream in August. At station 18 (just below the Jim Woodruff Lock & Dam) the D.O. ranged from above 8.4 in April and November to a low of 6.3 in July at midstream.

pH values for all stations during all the sampling cycles were in the 6.0 - 9.0 unit range. No significant vertical variation in pH was observed at any of the lake stations sampled during the study. During the fourth sampling cycle in August a slight lateral variation in pH of 0.3 and 0.4 and a more pronounced vertical variation of 1.6 and 1.8 was apparent at stations 11 and 15, respectively, again probably due to the lack of current and mixing at these reservoir stations. No significant lateral or vertical variation in pH was evident at any of the river stations during either cycle 1 in April or 4 in August.

All oxidation-reduction potentials (O.R.P.) in this report have been referenced to the Pt/H_2,H system. In general, O.R.P.'s ranged from about +300 mV to about +600 mV for all stations during all sampling cycles. An exception to this trend was station 80, just below the Great Southern Land and Paper Company outfall on the Chattahoochee River, Mile 38.2. Here the O.R.P. dropped sharply during cycles 2,3,5, and 6 to values ranging from +60 to +290 mV. According to the values in Appendix D, the slight variation in other parameters measured at this station (water temperature, conductivity, dissolved oxygen, and pH) do not correspond or account for the changes in O.R.P.

Turbidity over all the cycles was highest for the Chattahoochee stations with a mean value of 23.6 FTU. The mean value for the Flint River stations was 7.7 FTU, the reservoir stations, 14.8 FTU and the Apalachicola stations, 14.7 FTU. Turbidity at station 12 on Fish Pond Drain averaged 2.6 FTU and station 14 on Spring Creek averaged 9.1 FTU. Suspended solids concentrations, secci disc, and % light transmission exhibited the same general areal trends as turbidity.

Specific conductance, total dissolved solids (T.D.S.) and alkalinity all followed the same general areal patterns during the entire study period. All three parameters were lowest at the Chattahoochee River sampling sites (01-06), and generally higher on the Flint River arm of the reservoir. Station 14 on Spring Creek yielded the highest values for all three parameters for all the sampling cycles. The values for all stations and all cycles for specific conductance, T.D.S. and alkalinity were in ranges that would be expected in this type of system.

Total iron concentrations were fairly high at times compared to EPA criterion (U.S. EPA, 1976) and exhibited several areal and chronological trends. In all cases, the total iron was composed primarily of insoluble forms. Concentrations in the Chattahoochee were highest during cycle 1 and 2 in the spring, with values ranging from 1.5 mg/l to 5.0 mg/l. There was a general downward trend after the second cycle until cycle 5 in September where the lows ranged from 0.2 mg/l to 0.5 mg/l. Cycle 6 in November showed the beginning of another upward trend. Concentrations in the Flint River were highest during the first and fourth sampling cycles with values ranging from 1.3 mg/l to 2.0 mg/l, and lowest during the fifth cycle in September with values around 0.2 mg/l. Concentrations in the reservoir followed the same general trends as those in the Chattahoochee. Spring Creek and Fish Pond Drain had much lower concentrations. In the Apalachicola River the concentrations were again highest during cycle 1 and ranged from 1.7 mg/l to 2.3 mg/l. The concentrations then declined to low values of 0.2 mg/l to 0.3 mg/l during cycle 5 in September. It should be noted that concentrations of total iron at most of the stations during the spring and early summer months exceeded the suggested EPA criterion of 1.0 mg/l for fresh water aquatic life (U.S. EPA, 1976).

Concentrations of manganese and zinc were low at all times with concentrations never exceeding 0.2 mg/l. There were no obvious areal patterns. Neither Georgia nor Alabama have numerical criteria for zinc or manganese.

Total inorganic nitrogen (TIN), composed primarily of nitrate-nitrite, was highest on the Flint River stations during the entire phase, with values of TIN ranging from 0.30 mg/l to 0.75 mg/l. The Chattahoochee River and the reservoir stations were highest in the spring, decreased over the summer, and rose again in the fall. Values in the Chattahoochee ranged from lows of 0.08 mg/l in the fall to a high of 0.53 mg/l in the spring. In the Apalachicola River, values followed the same trend with high concentrations ranging from 0.39 mg/l to 0.45 mg/l during cycle 1 to low concentrations of 0.08 mg/l to 0.14 mg/l in September at stations 18 and 19, respectively. Total phosphorus values were generally highest during June and July and lowest in the fall. In June, the values were highest in the Chattahoochee River stations (mean of 0.23 mg/l) but in July they were higher in the reservoir stations (mean of 0.25 mg/l). In the Apalachicola River, the values were comparable to those in the reservoir with the values at station 19 being only slightly higher during cycles 1-3. Station 12 on Fish Pond Drain had extremely low values of both TIN and total P and station 14 on Spring Creek showed low total phosphorus, but high TIN. Dissolved orthophosphate values comprised a low percentage of the total phosphorus concentration; usually less than 20%. Total Kjeldahl nitrogen as measured on cycles 4-6 showed no significant areal variations.

Due to the limited sampling dates for other water quality parameters such as potassium, sodium, and organic nitrogen, discussion will be delayed for these until the Phase II Annual Report when comparisons can be better substantiated. Further comparisons and discussion will be made for all parameters also in the Phase II report after the second year of data collection.

Bacteriology

Bacteriology results are included in Appendix D. Samples were collected for Fecal Coliform and Fecal Streptococci during the third through sixth sampling cycles for all the water quality sampling stations plus two stations near public park facilities, B1 and B2. Due to equipment malfunctions, bacteriological results are missing or incomplete for stations 01 through 06 and 12 from the second sampling cycle in June, and for station 16 from the fifth sampling cycle in September. Although a complete set of data was not obtained, enough data was obtained

to establish several trends. Generally the Chattahoochee stations were rather low in fecal coliforms with most stations under 100/100 ml. Stations 05 and 06 near the lower end of the Chattahoochee were higher with values ranging from 100/100 ml to 600/100 ml. The Flint River stations were significantly higher; especially during cycle 2 when the count reached 2500/100 ml. Reservoir stations as well as Spring Creek, Fish Pond Drain and stations B1 and B2 were all low in coliforms. State standards for coliforms are 1000/100 ml in Georgia for waters classified for fishing and 200/100 ml in Florida for Class II waters, (Recreation - Propagation and Management of Fish and Wildlife) so coliform counts did exceed these standards several times throughout the study. Fecal strep counts tended to be highest on the Apalachicola and Chattahoochee and low in the reservoir itself along with Spring Creek and on the Flint River. Fecal coliform to fecal strep ratios as shown in Appendix D tend to indicate that human sources of contamination predominate on the Flint; and agricultural sources on the Chattahoochee.

Sediments

Complete surface sediment data and gradation curves are presented in Appendix L.

Physically, the sediments in the Chattahoochee, Flint and Apalachicola Rivers can be considered sand. Sediments in the reservoir itself range from sand at station 10 to loam at station 11. A physical description and classification of the sediment at each station is presented in Table 7. Generally, values for volatile solids and total organic carbon (TOC) tended to depend on the physical nature of the sediments. Those stations which were composed primarily of sand were low in volatile solids and TOC. The stations with a somewhat higher percentage of silts and clays, which are characterized as loamy sands and sandy loams and loam, such as stations 07, 09, 11, 13, 14, and 15 had higher values for volatile solids and TOC. Similarly, oil and grease and nutrient levels (measured by total Kjeldahl nitrogen (TKN) and total phosphorus) were higher at those stations characterized as sandy loam or loam.

Metals analyses were run on the sediments for Cu, Fe, Pb, Mn, Hg, Cd, Ni, Zn, As and Cr. The highest values for these parameters were found at station 14 in Spring Creek (see Appendix L) with concentrations for all the metals except arsenic ranging from 4 to 10 times higher than anywhere else in the study area. The reason for these higher levels is presently unknown.

Pesticide concentrations were generally below detection limits although levels of PCB and 2-4D were found at some stations. Station 03 on the Chattahoochee and station 09 in the reservoir showed the

TABLE 7

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
DESCRIPTION AND CLASSIFICATION OF SEDIMENTS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

Station	%Sand (.05-2mm)[1]	%Silt (.002-.05mm)	%Clay (<.002 mm)	U.S.D.A. Textural Classification [Chow, 1964]	D_{60}[2] (mm)	D_{10}[3] (mm)	U[4]	%Gravel (>#4 Sieve)	%Fines (<#200 Sieve)
01	75	25	0	Loamy Sand	1.5	0.16	9.4	20.0	0.83
02	70.3	4.1	0.9	Sand	1.2	0.08	15.0	12.6	8.05
03	73.8	0.3	0	Sand	1.3	0.14	9.3	19.2	0.3
04	84.3	7.8	1.2	Sand	0.33	0.05	6.6	3.1	19.6
05	79	1.2	1.3	Sand	0.95	0.1	9.5	17.4	3.0
06	93.3	2.8	1.2	Sand	0.73	0.09	8.1	0.3	5.7
07	85.5	8.5	3.5	Loamy Sand	0.28	0.04	7.0	0	16.2
08	92.5	4.7	2.4	Sand	0.62	0.08	7.8	0	7.0
09	62	31	7	Sandy Loam	0.15	0.003	50	0	41.8
10	91	7	2	Sand	0.19	0.05	3.8	0	14.8
11	41	36	23	Loam	0.05	0.001	50	0	66.5
12	89	7	4	Sand	0.30	0.07	4.3	0	10.5
13	80	14	6	Loamy Sand	0.30	0.01	30	1.1	19.4
14	76	14	10	Sandy Loam	0.70	0.002	350	0	25.0
15	78	12	10	Sandy Loam	0.21	0.002	105	0	25.0
16	88	9	7	Sand	1.0	0.03	33.3	5.4	12.1
17	98	1	1	Sand	0.35	0.08	4.4	0.1	6.0
18	100	0	0	Sand	9.0	0.5	18	61.7	0.36
19	99	1	0	Sand	1.5	0.25	6.0	15.5	1.8

NOTES:

1 Sand includes all particles >0.05 mm.
2 D_{60} = diameter at which 60% of the particles are finer than the value shown.
3 D_{10} = diameter at which 10% of the particles are finer than the value shown.
4 $U = D_{60}/D_{10}$ = uniformity coefficient.

highest concentrations of both PCB (AR1260) and 2-4D as follows:

	Station 03	Station 09
PCB(AR1260)	419 ppb	365 ppb
2-4D	569 ppb	275 ppb

PCB(AR1260) was generally highest in the Chattahoochee River stations (mean 188 μg/kg for stations 1-6) and also high in the Apalachicola River (mean 172 μg/kg for stations 18 and 19) compared to the other stations. Values in the Flint River, Fish Pond Drain, and Spring Creek were all less than 1.5 μg/kg. The levels of 2,4D were also highest in the Chattahoochee River stations (mean 118 μg/kg) and at station 9 as noted above. The values for the remaining stations were all below 6 μg/kg. Again, the reason for this concentration distribution is presently unknown partially due to the limited sampling dates.

Corbicula

Corbicula were found at stations 08, 12, 15, 16 and 19 during cycle 4 in August. Heavy metals analyses were run on all five samples. Chlorinated hydrocarbon analyses were conducted only on the samples from stations 12 and 19 because these were the only sites where sufficient Corbicula were found. The results of these analyses are shown in Appendix K. Heavy metal concentrations in Corbicula tissues ranged from just above to 2.3 times the detection limit for selenium to 44-65 times the detection limit for lead. Tissue heavy metals concentrations exhibited very poor correlations with corresponding sediment metals concentrations, i.e. all $r^2 < 0.70$. Of the seven heavy metals for which tissue analyses were performed, a Food and Drug Administration (FDA) Action Level has been established only for mercury, 1.0 ppm for shellfish, approximately an order of magnitude above the highest observed tissue concentration. Of the 18 chlorinated hydrocarbons analyzed only two, chlordane and endosulfan sulfate, were detected in Corbicula tissues from either of the two sites where sufficient sample volume was obtained. An FDA Action Level for fish of 0.3 ppm has been established for chlordane. This level is over 7 times the highest level observed (FDA, 1979).

Algal Growth Potential

The ability of the waters of Lake Seminole to support algal growth was measured three times during Phase I of the project. Eleven stations (Table 3) were analyzed during cycle 1 (April), cycle 3 (July), and cycle 5 (September). The complete data base including background water quality analyses of the nitrogen and phosphorus forms and concentrations occurring in the samples assayed for algal growth potential are shown in Appendix G. The AGP results submitted to the Environmental

Protection Agency's Data Storage and Retrieval System (STORET Code 70988) consists of the mean of the average of the 12 day and 14 day growth in the unspiked water. Due to poor growth of test algae after day 10 in the Algal Growth Potential test for the third sampling cycle in July, the test had to be concluded and was rerun. For assays of stations 12, 13 and 15 some of the EDTA spiked replicates were omitted due to insufficient sample volume. In addition, two replicates at station 12 were inadvertently omitted from the counting procedure (see Appendix G). In general the chemical analyses showed that dissolved ortho-phosphate was released from the condensed phosphate fraction during autoclaving. Total soluble inorganic nitrogen (TSIN) also increased slightly in many of the samples due to autoclaving. Most of these increases were due to ammonia released from the organic nitrogen fraction. Total Kjeldahl nitrogen and total phosphorus decreased slightly in most samples after processing.

In general, the condensed phosphorus and organic nitrogen fraction was not used for algal growth. Results of the replicated spiked and unspiked samples counted at 12 and at 14 days agreed within the ±20 percent precision considered acceptable for the results of this type of assay.

Table 8 summarizes the overall mean algal growth potential and primary limiting nutrient as determined by analysis of nitrate, ortho-phosphate and EDTA spikes. The algal biomass produced in the unspiked lake water is indicative of moderately high to high productivity as defined by Miller <u>et al</u>. 1974. These authors surveyed algal growth potential in 49 lakes and set up four categories of relative productivity based on algal growth potential:

Low	0 - 0.1 mg l^{-1}
Moderate	0.11 - 0.8 mg l^{-1}
Moderate High	0.8 - 6.0 mg l^{-1}
High	6.0 - 20.0 mg l^{-1}

Comparing the algal growth potential categories with trophic state as defined by other characteristics, Miller <u>et al</u>. 1974 found that lakes with moderately high or high algal growth potential were classed as eutrophic.

The algal growth potential in the reservoir proper (stations 09, 10, 11, 13, and 15) decreased over the course of the summer. Algal growth potential at station 18, below the dam, followed the pattern of the reservoir stations. Stations 12 and 14, located in relatively isolated areas of the reservoir showed a much lower algal growth potential than the reservoir or the river stations.

The stations located upstream in both the Flint (station 16) and Chattahoochee (stations 06 and 07) Rivers generally had higher algal growth potentials than the stations located in the main body of the reservoir. Station 16, located below the city of Bainbridge, GA, had

TABLE 8

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY SUMMARY OF ALGAL GROWTH POTENTIAL RESULTS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

	Algal Growth Potential (mg l^{-1})[1] and Primary Limiting Nutrient(s) (N or P)[2]		
Station Number	Cycle 1 April 17-21, 1978	Cycle 3 July 17-20, 1978	Cycle 5 Sept. 25-27, 78
06	9.53(P)	5.89(N)	7.66(P)
07	8.89(P)	6.19(N)	8.27(N)
09	7.81(P)	4.94(N,P)	4.39(N)
10	8.41(P)	3.47(N)	3.12(N)
11	9.75(P)	5.63(N)	2.81(N)
12	1.45(P)	2.36(P)	1.44(N)
13	11.4(P)	5.22(P)	4.77(P)
14	3.62(P)	2.40(P)	2.11(P)
15	14.9(P)	5.16(P)	8.94(P)
16	13.4(P)	14.7(P)	23.9(N)
18	10.3(P)	5.72(P)	3.29(N)

NOTES:

1. Mean of both 12 and 14 day counts with no nutrients added.
2. (N) = Limited by total soluble inorganic nitrogen

   (P) = Limited by available phosphorus

the highest overall algal growth potential of all stations. No toxic responses were evident in the algal assay data at this station even though other biological population measurements (phytoplankton, ATP, zooplankton) suggest that a toxic impact may limit plankton population development in the reach below Bainbridge. If a toxic factor is present at station 16 it is apparently removed by autoclaving and/or filtration.

The results of nitrate, phosphate and EDTA spiked tests show that trace metals do not limit algal growth response. Areal differentiation of the primary limiting nutrient occurred during the course of the summer. During the spring the entire reservoir was phosphorus limited. As shown in Table 8 many areas became nitrogen limited over the course of the summer months. At the present time, the reason for this is uncertain.

Phytoplankton

In general, the Lake Seminole phytoplankton counts show what one would expect (Fogg, 1975) in an impoundment system. During the April sampling period, the water temperature ranged from 18 to 23°C. Diatoms made up the largest percentage (77%) of the phytoplankton association with Melosira distans being the most abundant (Appendix H). Asterionella formosa, which prefers cooler water (Werner, 1977), was also found during April (Appendix H).

As the water temperature increased during the summer (27 to 30°C during the August and September sampling periods) there was a shift in the algal plankton association from diatoms which prefer temperatures below 30°C to blue-green algae which can grow well above 34°C (Werner, 1977). During both August and September, blue-green algae made up 76 percent of the plankton association (Table 9). During this time of the year, there was also a shift from phosphorus to inorganic nitrogen being the limiting factor at many stations (Table 8). Many of the blue-green algae found are capable of nitrogen fixation and would be able to grow well even where nitrogen was limiting.

During the sampling periods, no algal blooms of only one or two species were observed. The lack of a spring and/or fall phytoplankton bloom may have been the result of the high turbidity in the rivers since this is a known effect of high turbidity (Werner, 1977). Instead there was a gradual phytoplankton increase from an average of 1,951 cells/ml in April to 14,729 cells/ml in September. Generally, the reservoir stations (09, 10, 11, and 13) had higher numbers of cells/ml than these overall averages. Stations 01, 02, and 03 on the Chattahoochee River had higher population densities than average also, probably due to high algal densities in the reservoir upstream of these stations. At the other extreme, stations 16 and particularly 17 had drastically lower than average phytoplankton densities (Table

TABLE 9

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF PHYTOPLANKTON COUNTS BY MAJOR DIVISION FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

	Cycle 1 April 17-21, 1978		Cycle 2 June 5-7, 1978		Cycle 3 July 17-20, 1978		Cycle 4 Aug. 14-17, 1978		Cycle 5 Sept. 25-27, 1978		Cycle 6 Nov. 28-30, 1978	
Taxa	Cells/ml[1]	Percent[2]	Cells/ml	Percent	Cells/ml	Percent	Cells/ml	Percent	Cells/ml	Percent	Cells/ml	Percent
CHLOROPHYTA	6,360	17	16,973	19	36,753	20	35,227	14	48,048	17	40,614	36
CHRYSOPHYTA	28,812	78	32,976	38	19,141	11	24,790	10	16,461	6	31,053	27
Chrysophyceae	354	1	85	<1	46	<1	260	<1	254	<1	147	<1
Bacillariophyceae	28,453	77	32,668	37	18,913	10	24,351	9	16,110	6	30,815	27
CYANOPHYTA	1,790	5	36,445	42	123,261	68	196,257	76	214,048	76	41,199	36
EUGLENOPHYTA	83	<1	168	<1	410	<1	326	<1	390	<1	252	<1
PYRRHOPHYTA	19	<1	552	1	656	<1	655	<1	901	<1	502	<1
TOTALS	37,064	100	87,114	100	180,221	99	257,255	100	279,848	99	113,620	99

NOTES.

1. Cumulative cell density (Cells/ml) for all stations per cycle.
2. Percent of total cumulative cell density for all stations per cycle.

10). The reason for this is unknown but could suggest either a toxic response from materials entering the Flint River upstream or the Flint River may normally have low phytoplankton populations. A study to further investigate this is currently being proposed.

Of the diatom species found, most were characteristic of water with a pH near 7.0 (Partick and Reimer, 1966, 1975). Only a few frustules of genera characteristic of low pH (acidic water) such as Eunotia, Tabellaria, and Pinnularia were found. These were probably washed into the system from a tributary or in runoff.

A complete listing of phytoplankton cell densities by taxa at each station is given in Appendix H.

Zooplankton

The results of the Lake Seminole zooplankton counts are shown in Appendix I. The data show the distribution of various taxonomic groups and population size at 19 stations within the study site as shown on Figure 1. Table 11 is a summary of the number of taxa and population density at each station during the survey.

The summary table shows evidence of an impact at stations 16 and 17 similar to that shown for phytoplankton. There is a marked reduction in zooplankton at these two stations with station 17 generally having fewer organisms than station 16. As with the phytoplankton, a study to further investigate these low zooplankton densities is currently being proposed.

Zooplankton were most abundant during cycle 5 in September with a mean station concentration of 96 organisms/l. Phytoplankton densities were also greatest during this month (Table 9). During cycles 3 through 6, the Rotifera comprised 50-91 percent of the total zooplankton populations. In April and June however, cladocerans comprised 56 and 32 percent, respectively, of the total zooplankton populations and were the most abundant.

Considering the total number of species shown in Table 11, there is little variation in the number of taxa found at each station during the year.

Immature copepods represented the most abundant form of arthropods. Bosmia and Diaphanosoma were the predominant genera of cladocerans found during the year.

TABLE 10

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF PHYTOPLANKTON COUNTS BY STATION FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

	Cycle 1 April 17-21, 1978 - 300 Unit Count				Cycle 2 June 5-7, 1978 - 300 Unit Count			
Sta. No.	Units/ Count	Cells/ Count	Cells/ ml.	No. Taxa[1]	Units/ Count	Cells/ Count	Cells/ ml.	No. Taxa[1]
01	301	501	3,230	24	305	496	4,326	26
02	303	506	2,450	32	315	588	3,746	22
03	303	593	2,541	23	307	453	2,342	25
04	305	449	2,299	22	304	505	2,587	27
05	303	511	1,884	13	303	462	1,259	25
06	304	534	1,738	11	303	481	1,514	32
07	304	469	1,807	24	307	509	1,478	25
08	302	550	1,974	15	301	467	1,878	27
09	303	559	2,331	40	302	1,507	11,944	33
10	304	519	1,995	41	303	1,476	17,947	18
11	302	544	2,544	41	303	932	9,195	29
12	302	610	2,824	55	304	4,263	15,377	50
13	303	524	2,152	53	302	839	2,306	44
14	303	414	1,247	59	302	695	1,724	43
15	101[2]	235	249	61	302	1,338	2,232	35
16	101[2]	273	379	41	100[3]	277	244	39
17	90[2]	184	175	49	83[3]	184	164	34
18	302	458	2,241	39	302	796	3,854	31
19	303	510	3,064	38	302	602	3,178	33

NOTES:
1. See Appendix H.
2. Less than 300 units counted per sample due to paucity of organisms and much silt in sample.
3. Less than 150 units counted per sample due to paucity of organisms and much silt in sample.
4. Minimum of 300 units changed to 150 units via WAR letter to COE on October 10, 1978.
5. No sample collected due to low water conditions and boat and motor problems.

TABLE 10 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF PHYTOPLANKTON COUNTS BY STATION FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

	Cycle 3 July 17-20, 1978 - 300 Unit Count				Cycle 4 Aug. 14-17, 1978 - 150 Unit Count[4]			
Sta. No.	Units/ Count	Cells/ Count	Cells/ ml.	No. Taxa[1]	Units/ Count	Cells/ Count	Cells/ ml.[1]	No. Taxa
01	303	1,008	10,539	44	151	1,026	17,883	39
02	305	943	10,067	41	152	950	17,742	39
03	304	756	7,056	39	153	933	21,217	43
04	304	947	10,319	47	155	733	12,773	51
05	302	1,125	8,916	44	151	966	21,964	43
06	304	881	4,305	41	151	897	14,654	43
07	302	1,121	9,769	52	151	1,116	17,156	50
08	302	1,445	8,682	47	150	791	13,262	45
09	315	1,089	12,942	49	151	945	17,653	47
10	301	1,132	12,335	49	152	1,171	22,680	52
11	302	2,867	31,240	49	151	1,047	23,803	48
12	151[2]	371	901	35	151	530	1,246	41
13	304	2,094	15,418	63	333	1,576	27,471	41
14	302	573	1,569	58	151	354	1,515	44
15	302	1,901	16,032	45	152	442	6,794	32
16	304	436	860	44	151	471	698	51
17	202[2]	465	698	42	125[3]	164	144	43
18	302	1,895	11,658	48	151	747	10,848	41
19	303	1,607	7,115	47	151	587	6,979	37

NOTES:
1. See Appendix H.
2. Less than 300 units counted per sample due to paucity of organisms and much silt in sample.
3. Less than 150 units counted per sample due to paucity of organisms and much silt in sample.
4. Minimum of 300 units changed to 150 units via WAR letter to COE on October 10, 1978.
5. No sample collected due to low water conditions and boat and motor problems.

TABLE 10 (continued)

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF PHYTOPLANKTON COUNTS BY STATION FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

	Cycle 5 Sept. 25-27, 1978 - 150 Unit Count				Cycle 6 Nov. 28-30, 1978 - 150 Unit Count			
Sta. No.	Units/ Count	Cells/ Count	Cells/ ml.	No. Taxa[1]	Units/ Count	Cells/ Count	Cells/ ml.	No. Taxa[1]
01	156	959	21,806	40	152	890	12,574	40
02	151	989	24,631	34	152	628	9,955	45
03	152	913	28,087	30	152	524	7,023	49
04	151	756	15,203	43	153	581	5,836	46
05	153	831	24,143	35	153	442	4,913	38
06	155	544	8,623	45	151	560	8,368	42
07	153	632	10,016	40	151	418	7,535	51
08	152	744	13,414	45	151	372	5,893	38
09	156	709	13,726	51	155	522	9,097	37
10	152	1,084	37,797	40	152	459	11,431	46
11	152	1,095	28,630	48	160	322	11,229	40
12	152	752	2,582	49	-[5]			
13	164	803	23,330	34	154	289	6,870	20
14	151	246	1,101	46	153	404	3,524	39
15	152	698	9,606	29	151	235	2,562	13
16	152	224	1,391	29	153	215	361	35
17	153	236	688	34	151	127	163	32
18	153	587	9,901	46	154	347	6,483	27
19	153	538	5,621	46	-[5]			

NOTES:
1. See Appendix H.
2. Less than 300 units counted per sample due to paucity of organisms and much silt in sample.
3. Less than 150 units counted per sample due to paucity of organisms and much silt in sample.
4. Minimum of 300 units changed to 150 units via WAR letter to COE on October 10, 1978.
5. No sample collected due to low water conditions and boat and motor problems.

TABLE 11

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF ZOOPLANKTON ORGANISM CONCENTRATIONS AND NUMBER OF TAXA OBSERVED AT EACH STATION SAMPLED DURING PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

Sta. No.	Cycle 1 April 17-21		Cycle 2 June 5-7		Cycle 3 July 17-20		Cycle 4 Aug. 14-17		Cycle 5 Sept. 25-27		Cycle 6 Nov. 28-30	
	No. Org.[1]	No. Taxa[2]	No. Org.[1]	No. Taxa[2]	No. Org.[1]	No. Taxa[2]	No. Org.[1]	No. Taxa[2]	No. Org.[1]	No. Taxa[2]	No. Org.[1]	No. Taxa[2]
01	43	13	8	14	44	13	68	17	104	15	41	16
02	68	18	5	13	62	15	25	15	89	16	65	18
03	55	11	17	10	27	17	34	19	273	12	51	20
04	32	12	5	7	57	12	22	18	78	18	36	16
05	53	10	8	21	30	15	40	17	134	18	61	17
06	47	10	5	20	37	14	15	17	57	15	69	15
07	29	10	7	15	81	14	38	18	72	11	16	18
08	9	10	11	17	173	14	23	17	80	15	12	19
09	46	10	26	13	92	18	94	19	128	15	38	19
10	27	15	181	15	100	20	62	15	146	16	64	15
11	74	16	77	16	139	19	111	19	97	19	77	16
12	22	13	22	11	34	11	11	13	83	22	--(3)	--(3)
13	8	16	171	17	82	14	208	17	164	16	391	13
14	3	11	16	19	6	19	5	15	16	16	--(4)	--(4)
15	3	15	33	13	53	14	10	17	152	12	62	10
16	2	13	1	13	0.15	8	4	16	2	16	0.26	7
17	0.67	6	0.15	3	0.31	4	0.49	11	3	10	0.14	5
18	79	14	54	15	90	20	37	25	83	15	--(4)	--(4)
19	69	17	66	16	22	20	15	18	70	14	--(4)	--(4)

NOTES:
1. Number of organisms per liter.
2. See Appendix I.
3. Not sampled due to low water levels.
4. Not sampled due to equipment failure (i.e., boat motor problems)

ATP Test Results

The ATP concentration from the depth integrated water sample at each station ranged from 5 ng/l to 563 ng/l. The highest value was found at station 13 during the June 1978 sampling period. The ATP results are shown in Table 12.

Comparison of phytoplankton densities (Table 10) to ATP concentrations (Table 12) at each station shows that the correlation between them is poor. This is because of the great difference in cell size of the organisms. A diatom such as Navicula cryptocephala may be 40 μ long and 18 μ wide in contrast to a blue-green alga such as Microcystis incerta which has spherical 1 μ diameter cells making up each colonial unit. Therefore, one Navicula cell would contain a much greater amount of ATP than a Microcystis cell. For example, at station 12 on the June 1978 trip the cells/ml number is high while the ATP concentration is low. However, upon looking at the organisms at station 12 on this date, it is found that the dominant organisms were Aphanocapsa delicatissima and Merismopedia glauca both of which have very small cells.

Since the test includes ATP from phytoplankton, zooplankton, and bacteria it is reasonable not to expect a good correlation with any one of these separately or with total chlorophyll. Taken all together however, the trend in ATP concentration tends to follow the trends for phytoplankton, zooplankton and chlorophyll. Generally, the highest ATP concentrations were found at the reservoir stations during the summer. Moderate to high values were also found in the Chattahoochee and Apalachicola Rivers with the lowest concentrations found in the Flint River and at station 12.

Macroinvertebrates

The macroinvertebrate sampling results are summarized in Appendix J. The Chattahoochee River (stations 01 through 07) supports sparse populations of a few species of benthos adapted for a shifting sand environment. These were dominated by Corbicula and turbellarians, with chironomids and oligochaetes being consistently present although in low numbers. The oligochaetes were primarily tubificids and a new species of Enchytraeidae (Loden, 1980). The Flint River stations (16 and 17) were also characterized by shifting sands, however, the species associations were different. These were dominated by Corbicula, with oligochaetes, chironomids and turbellarians as sub-dominants. The oligochaetes were primarily tubificids and naidids. Benthic macroinvertebrate populations in the Flint River did not exhibit the depressed characteristics recorded for zooplankton and phytoplankton.

The open-water, "reservoir" stations (08, 09, 10, 11, 13, and 15) have substrates composed mostly of silt, clay, and detritus. Here the dominant benthic organisms were Hexagenia, tubificids and chironomids. Corbicula and Chaoborus were also common.

TABLE 12

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF ADENOSINE TRIPHOSPHATE (ATP) CONCENTRATIONS (ng/l)* FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Station	Cycle 1 April 17-21	Cycle 2 June 5-7	Cycle 3 July 17-20	Cycle 4 Aug. 14-17	Cycle 5 Sept. 25-27	Cycle 6 Nov. 28-30
01	88	113	168	71	302	76
02	82	< 95	72	129	96	80
03	65	< 95	60	113	113	59
04	141	91	101	92	91	63
05	180	< 95	56	83	160	66
06	100	< 95	104	78	152	90
07	84	102	401	71	79	93
08	78	117	78	90	163	95
09	150	504	59	104	165	126
10	80	496	73	122	141	105
11	82	402	35	72	150	127
12	29	26	39	34	225	*
13	79	563	29	105	168	136
14	58	63	37	86	100	129
15	57	130	471	328	240	96
16	< 33	31	87	64	76	39
17	39	34	5	< 59	68	35
18	< 65	92	75	77	162	115
19	165	217	42	67	40	*

* Not sampled due to low water level and boat problems.

Apalachicola River stations 18 and 19 were located within a gravel bed, a substrate much more conducive to benthic productivity than the sands and silts of the other stations. This area was dominated by Corbicula and Potamyia flava. Chironomids, oligochaetes, and turbellarians are also very abundant.

Station 12 was located in a wide, shallow, relatively stagnant area, with a silty sediment high in detritus and dense, submerged aquatic macrophytes. The dominant benthos were Corbicula, oligochaetes, and chironomids. Hexagenia was present but uncommon. It is likely that macroinvertebrates were much denser here than the benthic data indicate, as the abundant aquatic macrophytes could easily support more macroinvertebrates than the sediments.

Station 14 is similar to the reservoir stations in that it has silty sediments high in detritus, and the benthos was dominated by Hexagenia, tubificids, and chironomids, with Corbicula and Chaoborus being common. The number of taxa was much higher, however, possibly due to the very dense submerged macrophytes.

Evenness and Shannon-Weaver diversity values (base 2) were computed for the benthos and are shown in Table 13. The data from the three samples collected at each station were combined and the values computed from that. The values ranged from 0.33 to 3.24. Comparisons between stations show that the diversities for the Chattahoochee River stations were relatively low for stations 01 through 06 and ranged from 0.55 to 1.69 with an overall mean of 1.09. The highest diversity was found at station 14 (Spring Creek) and ranged from 2.65 to 3.24 with an overall mean of 3.03. The remaining stations had moderate diversities including the reservoir stations which had moderate diversities during April but lower diversities in July and September. Evenness values paralleled diversity; where diversity was relatively high, evenness was relatively high, and where diversity was low, evenness was low. "Biomass" estimates also paralleled diversity values.

Of the total 32 Hester-Dendy artificial substrate samplers placed during Phase I work, only nine were recovered. All but one had densities around 5000 or less organisms per square meter, or about 650 organisms per sampling unit (see Table J7 & J8). The exception occurred at Station 18 (cycle 4), where total density was almost 17,000 organisms per square meter. Due to the lack of sampler recovery in the reservoir and in the Chattahoochee River, it is unknown how this high density compares to levels in these areas. It is assumed that it is high due to abundant food (plankton) in the reservoir during August (see Tables 9 & 11) just upstream of station 18. The diversity values of two of the samplers were low (less than 1.7), while the remainder ranged from 2.0 to 3.3 (Table 14).

TABLE 13

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF BENTHIC MACROINVERTEBRATE SHANNON-WEAVER
SPECIES DIVERSITY (BASE 2) AND EVENNESS FOR PHASE I (APRIL, 1978 THROUGH NOVEMBER, 1978)

Station	Cycle 1 (April 17-21, 1978)		Cycle 3 (July 17-20, 1978)		Cycle 5 (September 25-27, 1978)	
	Shannon-Weaver Diversity Index	Evenness	Shannon-Weaver Diversity Index	Evenness	Shannon-Weaver Diversity Index	Evenness
01	1.407	0.606	0.551	0.551	1.051	0.374
02	1.420	0.473	0.953	0.411	1.227	0.528
03	0.872	0.550	1.250	0.394	0.576	0.182
04	1.227	0.528	0.591	0.254	0.627	0.223
05	1.179	0.590	1.365	0.486	0.803	0.286
06	1.154	0.447	1.693	0.534	1.650	0.460
07	2.795	0.841	2.143	0.579	1.381	0.416
08	1.452	0.726	1.708	0.514	1.353	0.366
09	2.427	0.677	0.608	0.176	1.905	0.500
10	2.792	0.841	1.416	0.409	1.454	0.518
11	2.298	0.664	1.353	0.427	2.505	0.677
12	2.718	0.593	1.985	0.626	2.551	0.564
13	2.760	0.706	1.526	0.441	0.744	0.248
14	2.653	0.767	3.239	0.681	3.202	0.681
15	2.617	0.707	1.990	0.575	1.330	0.474
16	2.428	0.505	2.247	0.484	2.456	0.614
17	0.991	0.625	2.079	0.520	2.401	0.576
18	0.329	0.142	2.083	0.482	2.733	0.596
19	2.218	0.668	2.135	0.494	1.756	0.449

TABLE 14

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
SUMMARY OF HESTER-DENDY MACROINVERTEBRATE
SHANNON-WEAVER SPECIES DIVERSITY (BASE 2) AND EVENNESS FOR PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

Station	Cycle 2 June 5-7, 1978		Cycle 4 Aug. 14-17, 1978	
	Shannon-Weaver Species Diversity Index	Evenness	Shannon-Weaver Species Diversity Index	Evenness
01	--	--	--	--
02	--	--	--	--
03	--	--	--	--
04	--	--	--	--
05	--	--	--	--
06	--	--	--	--
07	3.101	0.717	--	--
09	--	--	--	--
11	--	--	--	--
12	2.367	0.712	--	--
13	2.001	0.512	--	--
14	--	--	3.327	0.770
15	3.048	0.718	--	--
16	--	--	1.685	0.390
18	2.935	0.751	1.312	0.395
19	2.934	0.751	--	--

NOTE:

(--) Indicates Hester-Dendy Artificial Substrate Sampler was not recovered.

Macrophytes

Aquatic macrophytes are probably the most conspicuous feature of Lake Seminole. Reservoir personnel have identified over 700 taxa of macrophytes from aquatic situations. Approximately 73 taxa were recorded in this survey to be common to abundant (Appendix M). They cover an estimated 40.1 percent of the area of the reservoir (Table 15). They have become a severe nuisance in many locations such as access channels and boat ramps. The distribution of aquatic macrophytes in Lake Seminole is shown in Figure 4 and categorized by location in Table 16.

Submersed vegetation occurs almost everywhere the water is transparent enough to allow sunlight to penetrate to the bottom. Emergent vegetation occurs almost everywhere the water is shallow enough for them to become established. Where the water is too turbid or too deep, floating plants have the potential to become very dense. Intensive spraying of herbicides during 1978 kept the floating plants to a minimum. However, in the Flint River where hyacinths were reduced by herbicide spraying, broken patches of floating algal mats were present over large areas. Spraying has also been conducted over the last few years in a number of small access channels and canals. In every instance, though, aquatic macrophytes were quickly reestablished, and by the middle of the following growing season the macrophytes were once again of nuisance proportions. For this reason, and due to the very high costs, spraying has been conducted generally only on selected areas of high cultural use such as boat ramps and access channels. The morphometry of the reservoir and the relatively high nutrient inputs virtually assure that aquatic macrophytes will be a major management problem for the remainder of the reservoir's life.

TABLE 15

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY ESTIMATED COVERAGE OF AQUATIC MACROPHYTE ON LAKE SEMINOLE FROM 1961 THROUGH 1978

Year	Estimated Coverage (Acres)	Percent of Total (%)
1961	6,897	18.4
1971	9,709	25.9
1972	5,542	14.8
1973	14,076	37.5
1974	15,126	40.3
1975	20,580	54.9
1977	23,075	61.5
1978	15,001	40.1

NOTE:

1. Values for 1961 through 1977 are estimated total acreages of the 49 most common taxa found by the U. S. Army Corps of Engineers personnel at Lake Seminole, in their series of General Aquatic Plant Surveys of Lake Seminole. 1978 values are total coverage of all aquatic macrophytes found by Water and Air Research, Inc. Differences in methodologies probably accounts for the reduction shown for 1978.

TABLE 16

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY COVERAGE OF AQUATIC MACROPHYTES ON LAKE SEMINOLE, CATEGORIZED BY LOCATION SURVEYED.

Location	Acreage of Abundant[1] Vegetation	Acreage of Intermittent[2] Vegetation	Total Acreage of Aquatic Macrophytes by Area
Chattahoochee River Area	1,432	905	2,328
Flint River Area	121	1,148	1,269
Apalachicola River Area	0[3]	0	0
Reservoir Area	4,890	2,930	7,820
Spring Creek Area	2,179	96	2,275
Fish Pond Drain	1,309	0	1,309
Totals	9,922	5,079	15,001

NOTES:

[1] Abundant: macrophytes cover 10 percent or more of the substrate area.

[2] Intermittent: macrophytes cover less than 10 percent of the substrate area, usually in scattered clumps.

[3] No intermittent vegetation; substrate either bare or abundantly vegetated.

FIGURE 4

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY
DISTRIBUTION OF AQUATIC MACROPHYTES DURING PHASE I
(APRIL, 1978 THROUGH NOVEMBER, 1978)

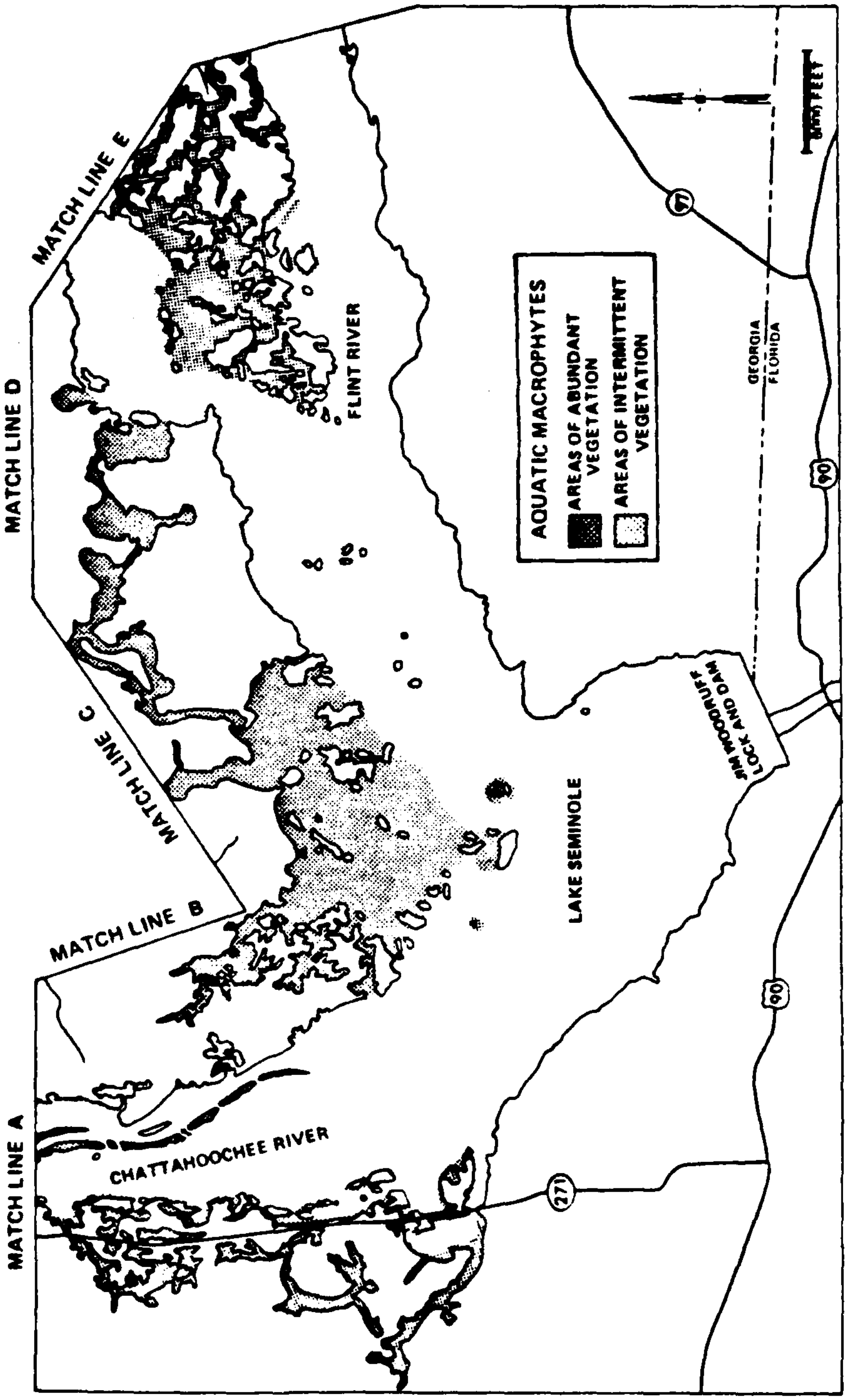


FIGURE 4 (continued)

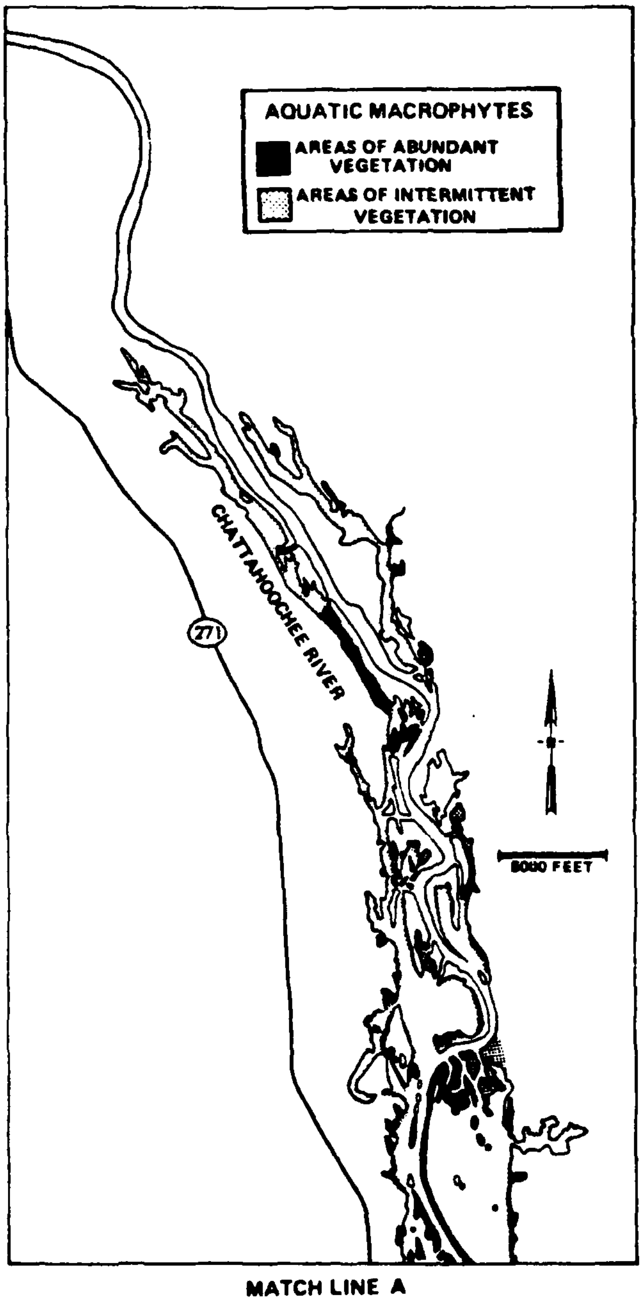


FIGURE 4 (continued)

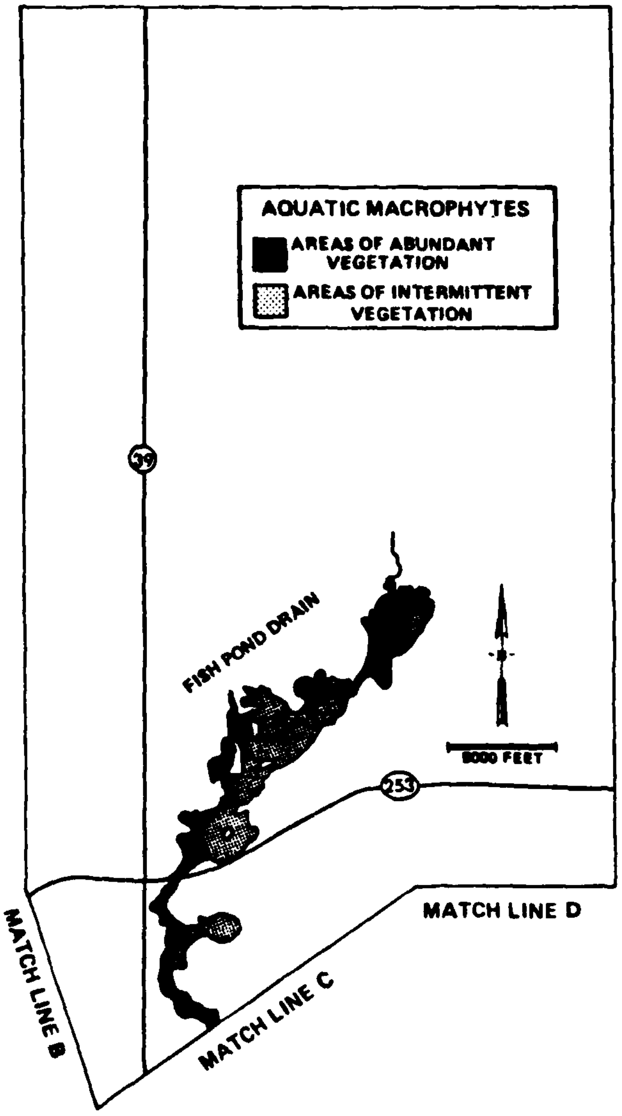


FIGURE 4 (continued)

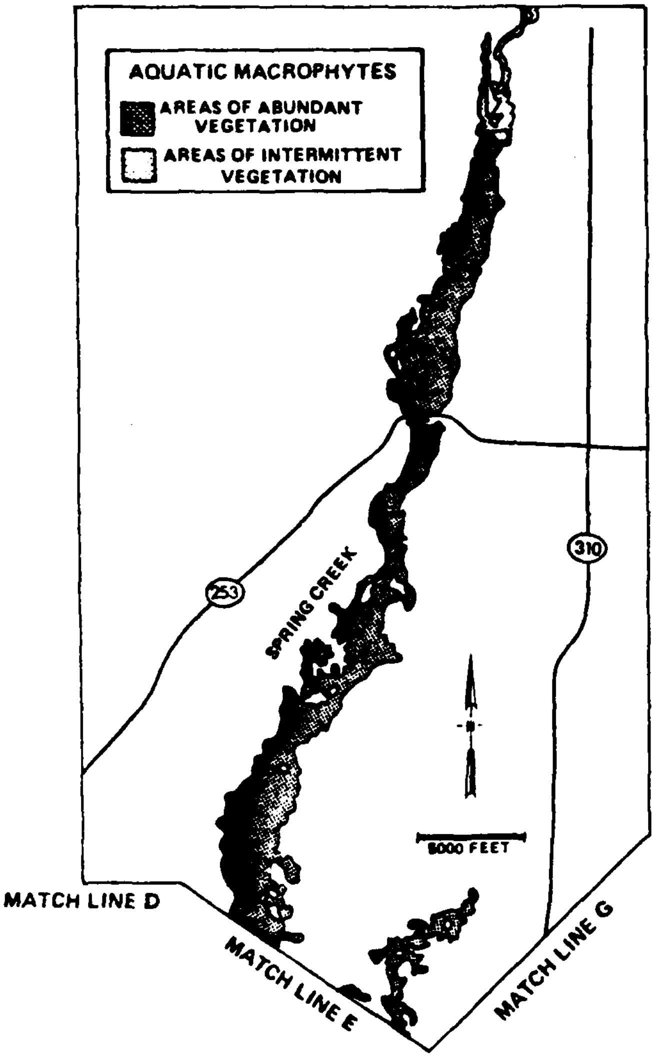
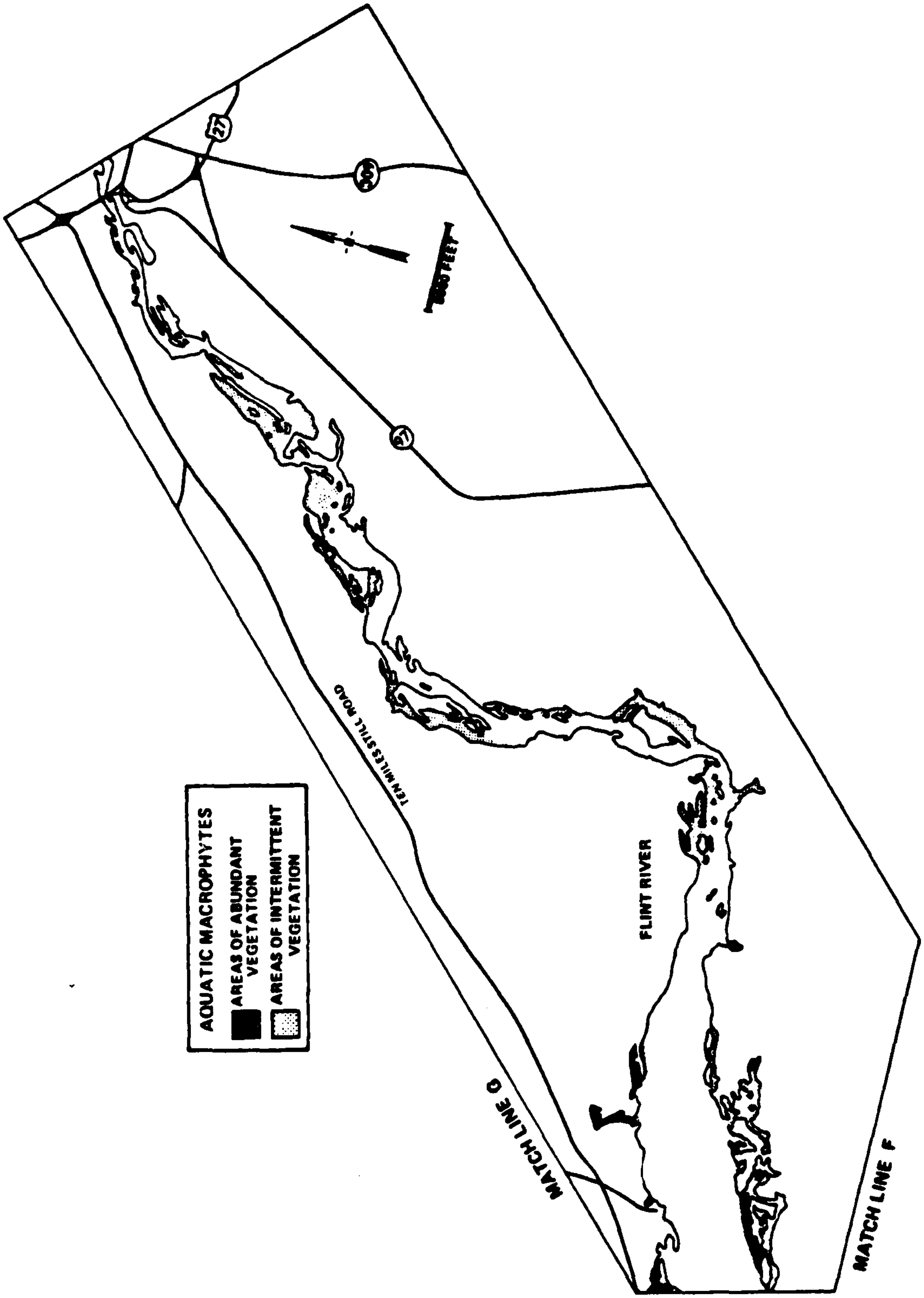


FIGURE 4 (continued)



SUMMARY

The purpose of Phase I of the Lake Seminole Water Quality Management Study was the establishment of a comprehensive water quality, sediment, and biological data base at various sites within the impoundment, in the backwater stretches of the major tributaries, and immediately downstream of the outfall on the Apalachicola River. This data base is to be utilized for the combined purposes of future reference, guidance in the improvement of reservoir operations, facilitation of coordination with state agencies in the implementation of watershed pollution control measures, and identification of significant water quality problems.

Meteorological, hydrological, water quality, sediment, and biological data were obtained at a total of 19 main sampling stations in Lake Seminole, the Chattahoochee River, the Flint River, Spring Creek, Fish Pond Drain, and the Apalachicola River during 6 sampling cycles from April 17, 1978 through November 30, 1978. Limited sampling and analyses were also performed at 5 special sampling sites at various times during the course of this study. Biological sampling included bacteria, phytoplankton, zooplankton, macroinvertebrates, and aquatic plants.

Average monthly flows through the impoundment ranged from 221 m^3/sec during November to 1005 m^3/sec during May. During the study period, the Chattahoochee River accounted for 60-80 percent of the flow into the impoundment. As a result of operational procedures at the Walter F. George Lock and Dam on the Chattahoochee River upstream of Lake Seminole, flows through the Chattahoochee River impoundment arm exhibited considerable short term variation.

In general, each of the major impoundment arms of Lake Seminole tended to be well-mixed both laterally and vertically. Little lateral variation and essentially no vertical stratification was observed in temperature, dissolved oxygen, pH, or oxidation-reduction potentials during either spring (April) or summer (August) sampling cycles during which extensive <u>in situ</u> sampling was performed. Although surface warming at most <u>lake stations</u> was evident during the early summer (June and July), the shallowness of the impoundment prevented the development of a well-defined thermocline.

Average turbidity levels in the Chattahoochee River were approximately three times those in the Flint River with suspended solids, Secchi disk, and percent light transmittance exhibiting the same general areal pattern over the course of the study. Concentrations of most of the other inorganic water quality parameters, except nutrients, showed no significant areal or chronological patterns. Concentrations of all sampled metals, except iron, were generally low

with no obvious areal patterns. Concentrations of total iron at most stations during the spring and early summer months exceeded the EPA criterion of 1.0 mg/l for freshwater aquatic life.

Total inorganic nitrogen ranged from 0.30 to 0.75 mg/l at Flint River stations to 0.08 to 0.53 mg/l at Chattahoochee River stations with highest concentrations in the spring, decreasing to a mid- or late-summer minimum and increasing again in the fall. Total phosphorus concentrations were generally highest during June and July and lowest in the fall. In June, the values were highest in the Chattahoochee River stations (mean of 0.23 mg/l) but in July they were higher in the reservoir stations (mean of 0.25 mg/l). In the Apalachicola River, the values were comparable to those in the reservoir with the values at station 19 being only slightly higher during cycles 1-3. In general, based on nutrient content, the waters of Lake Seminole tended to be moderately high to highly productive with respect to the production of algal biomass. On the basis of potential algal production alone, the system would be classed as eutrophic. During the spring, the system was phosphorus limited, with many areas becoming nitrogen limited as the summer progressed. Trace metals did not appear to limit algal growth.

Phytoplankton populations were characteristic of a system of this type. Algal blooms consisting of only one or two dominant species were not observed and may be a result of the relatively high turbidity of the system. Algal populations tended to increase gradually during the study from an average of 2000 cells/ml during April to over 14,500 cells/ml in September, with the corresponding shift in the plankton associations from diatoms to blue-green algae attributable to temperature as well as nutrient content. In general, the lake stations and the uppermost Chattahoochee River stations tended to exhibit higher than average cell densities. Stations 16 and 17 on the Flint River had extremely low phytoplankton densities. It is presently unknown if this is a toxic response or if these low densities are simply normal for the Flint River.

Zooplankton assemblages exhibited little variation in the number of taxa found at each station during the year. However, zooplankton densities were greatest during cycle 5 in September (overall mean of 96.3 organisms/l). At stations 16 and 17 there was a reduction in zooplankton densities similar to that shown for phytoplankton. Generally, station 17 had fewer organisms than station 16 and a study to further investigate the low zooplankton and phytoplankton concentrations is currently being proposed since the reason for these low densities is unknown. Copepods and cladocerans represented the most abundant arthropods with immature copepods being the most common.

The bacteriological quality in Lake Seminole ranged from good in the upper Chattahoochee River stations and at the lake stations where fecal coliform levels were generally below 100/100 ml, to poor at station 17 in the Flint River in the vicinity of Bainbridge where fecal coliform concentrations in excess of 2,500/100 ml were observed in June. The fecal coliform to fecal streptococci ratios tend to indicate that human sources of contamination predominated in the Flint River and agricultural sources predominated in the Chattahoochee River.

ATP concentrations tended to follow the same general trends as phytoplankton, zooplankton, and chlorophyll. However, due in part to differences in total biomass, only a poor correlation existed between individual assemblages.

Bottom sediments ranged from relatively clean sands in the Chattahoochee, Flint, and Apalachicola Rivers to sand and sandy loams in the impoundment itself. The organic and nutrient contents tended to be related to the percent fines. Heavy metals concentrations were generally low. The concentration of most of the pesticides analyzed were below detectable limits, although levels of the polychlorinated biphenyls (PCB) Arocblor 1254 and 1260 and the herbicide 2-4 D were found in sediments taken at most stations in the Chattahoochee River and impoundment at concentrations as high as 753 μg/kg dry weight, 419 μg/kg dry weight, and 569 μg/kg dry weight, respectively.

Benthic macroinvertebrate populations tended to be closely associated with the nature of the supporting substrate. Chattahoochee and Flint River stations exhibited sparse populations adapted to a shifting sand environment, although the species associations were dissimilar. Lake stations supported populations adapted to a substrate composed of finer sands, silts, and clays. The sampling sites in the Apalachicola River were characterized by a coarser, more productive substrate. Benthic diversities ranged from relatively low in the Chattahoochee River to moderate in the Flint and Apalachicola Rivers with the diversities in the reservoir varying seasonally from moderate to low, with lowest diversities occurring towards late summer. Evenness and biomass tended to closely parallel diversity. Recovered Corbicula were analyzed for 7 heavy metals and 18 pesticides although sufficient tissue was obtained at only two stations for complete pesticide analyses.

Aquatic macrophytes constituted the most conspicuous feature of Lake Seminole. They were a severe nuisance in a number of locations such as access channels and boat ramps. Emergent and/or floating macrophytes covered over 40 percent of the total reservoir surface area and nearly 100 percent of the surface area with a depth less than 2 meters. Approximately 73 taxa were identified during this study as being either common or abundant.

RECOMMENDATIONS FOR FUTURE STUDIES

The following are areas which deserve consideration for future studies.

1. Macrophytes

Aquatic macrophytes are well established on over 40 percent of Lake Seminole, and cover almost 100 percent of the portion that is less than two meters deep. Since the macrophytes are not limited by nutrients or grazing, it is likely that they will continue to increase in extent until blocked by riverine currents or water too turbid to transmit sunlight. Even then, expansion may continue although at a reduced rate, since siltation continues to slowly fill the reservoir. Also, aquatic vegetation increases the rate of siltation (and organic matter deposition), thus increasing the rate of macrophyte expansion. Through this process, aquatic macrophytes may eventually cover the entire lentic portion of the reservoir.

This situation is a result of several factors: (1) The reservoir is generally very shallow, and in most places the water is sufficiently transparent to allow insolation to penetrate to the bottom of the water column. (2) The availability of nutrients to macrophytes from upstream sources is essentially unlimited. (3) The number of macrophyte species is so diverse, that even if a "perfect" herbicide could be developed to completely eliminate a species from the reservoir, there are dozens of species that would be able to quickly invade and repopulate the area. This is readily borne out by the experiences of reservoir personnel (D. Vickers, pers. comm.), where choked access channels were sprayed one year for Species A, and the following year they were choked with Species B.

Past management practices have been limited to small areas of high user demand due to the high economic costs. In 1978, for example, about 1,080 acres were sprayed or chopped for an estimated total cost of $76,095. This is an average cost of $70.46 per acre. Also, only a small portion of the areas needing plant control were treated. Lake Seminole Reservoir personnel are now asking for $195,700 to treat 2,000 acres in 1979 ($98.35 per acre), and $309,525 to treat 3,050 acres in 1980 ($101.48 per acre).

Clearly, these expensive measures can provide only temporary relief from the symptoms of greater problems. It is quite possible that a more lasting and less expensive solution(s) exists. Water level drawdowns, for instance, have proven very beneficial in various lakes in Florida. The Lake Seminole Reservoir is a far more complex system physically than the average lake, however. A combination of several

kinds of treatments may be necessary in this shallow, nutrient-rich and most botanically diverse reservoir.

2. Intensive Study of Flint River

Analysis of the data, throughout Phase I, identified a marked reduction in phytoplankton, zooplankton, chlorophyll, and ATP levels in the Flint River at miles 24 and 29 (stations 16 and 17, respectively) near Bainbridge, Georgia. It would appear that the river is continuously stressed from a source upstream from station 17 unless the Flint River naturally has low plankton densities. Since station 17 represents the northern extremity of the present study, the limits of these conditions were not defined. The cause of this stress is unknown, but it does not appear to be physical in nature -- no gradients were observed with temperature, dissolved oxygen, conductivity, or pH from stations 15 through 17. Therefore, a study should be conducted to determine the cause, extent, and magnitude of this possible environmental impact, which is identified by the plankton density decreases.

This has the potential for an ideal study that would result in the full identification of a specific environmental impact. It is hoped that this project can be implemented as soon as possible so that the proposed studies can be integrated into the ongoing project and that the cause-effect relationships of this impact can be established.

PARTICIPATING STUDY TEAM

Water and Air Research, Inc.

A project team of engineers, biologists, chemists, and technicians conducted the study. The overall project manager was Dr. J. H. Sullivan, Jr., with the assistance of Mr. R. Blum, Mr. B. Bailey and Mr. J. Nichols in logistics, data analysis and field activities. Dr. H. D. Putnam served as coordinator and advisor for the biological activities. Mr. B. Pruitt and Mr. M. Hein were responsible for the field and in-house biologic efforts with the assistance of Ms. P. Dickinson.

Mr. B. Bailey was responsible for the coordination of field water quality sampling and reporting. Analytical procedures were supervised by Ms. C. Hackett and Dr. M. Keirn with the assistance of Ms. Maria Neves, Mr. L. Larson, Mr. P. Nathanson, Mr. M. Timpe and Ms. P. Dickinson. Dr. M. Keirn coordinated the Algal Growth Potential test work. Mr. J. Nichols supervised and coordinated all the computerized data handling with the assistance of Mr. M. Timpe. Field personnel included Mr. R. Blum, Mr. B. Bailey, Mr. B. Pruitt, Mr. M. Hein, Mr. M. Timpe and Mr. M. Putnam. The final copy was produced by Ms. J. Dorsey, Ms. P. Paschall, Ms. D. Nickelson and Ms. C. Pagnozzi.

U. S. Army Corps of Engineers

Mobile District

Mr. Joseph Boda, Environmental Engineer, was the contract manager responsible for contractual compliance, data reliability, and final report acceptability. Dr. Diane Findley, Ecologist, provided biological support to substantiate data accuracy and report quality.

South Atlantic Division Laboratory

Mr. James Nowland, Chemist, and Mr. Herbert Miller, Jr., Chemist provided assistance on chemical data reliability.

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WATER QUALITY MANAGEMENT STUDIES LAKE SEMINOLE, APRIL-NOVEMBER --ETC(U)
SEP 81 DACW01-78-C-0101
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APPENDIX A

STREAM FLOWS

LIST OF TABLES

TABLE A-1

STREAM FLOWS - MONTHLY AVERAGES (cfs)

	Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Spring Creek[1] near Iron City, Ga.	Jim[2] Woodruff Lock & Dam
April	10906	7349	NA	24777
May	18383	9711	NA	35488
June	8850	4468	NA	17181
July	6086	2821	NA	11860
August	11769	4311	440	18979
September	7679	2047	NA	10920
October	6482	2118	43	9439
November (through 5th)	4554	2114	33	7821

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: NA = Data not available.

TABLE A-2

DAILY AVERAGE STREAM FLOWS (cfs)
CYCLE 1

	Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Jim Woodruff[2] Lock & Dam
April 9	1850	6160	12395
10	6330	4460	14478
11	6880	4990	14481
12	7000	5280	14595
13	23100	5360	32431
14	31800	7470	43877
15	12700	9460	35549
16	2380	10300	21042
17	11800	10500	21340
18	18400	10400	41645
19	31520	10100	46749
20	30700	10200	53337
21	23200	10500	42192
22	10900	10500	27461

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: Daily Average Flows were not available for Spring Creek.

TABLE A-3

DAILY AVERAGE STREAM FLOWS (cfs)
CYCLE 2

		Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Jim Woodruff[2] Lock & Dam
May	28	962	3690	13417
	29	9500	3340	14087
	30	10310	4530	14001
	31	10292	5190	14127
June	1	10332	500	14659
	2	10531	4070	16971
	3	2255	4360	18947
	4	3817	5070	16991
	5	13231	6220	17060
	6	12639	6160	19891
	7	10349	6260	28056
	8	16758	5600	26296
	9	24823	5310	33345
	10	9446	5430	31549

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: Daily Average Flows were not available for Spring Creek.

TABLE A-4

DAILY AVERAGE STREAM FLOWS (cfs)
CYCLE 3

	Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Jim Woodruff[2] Lock & Dam
July 9	1062	2500	11190
10	8660	2370	11604
11	9268	2620	11536
12	9352	2860	11287
13	9284	2870	10904
14	9144	2830	11632
15	1461	2770	11606
16	1003	3150	10899
17	8110	3640	10920
18	9390	4560	11413
19	6470	4250	13902
20	5187	3650	13980
21	7277	3520	11493
22	2040	3560	11863

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: Daily Average Flows were not available for Spring Creek.

TABLE A-5

DAILY AVERAGE STREAM FLOW (cfs)
CYCLE 4

		Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Jim Woodruff[2] Lock & Dam
Aug.	6	1231	3940	11168
	7	12200	3530	14189
	8	11700	4110	14130
	9	13000	3450	23713
	10	21300	4160	25798
	11	23500	4420	28836
	12	12700	5950	24004
	13	2470	7010	20660
	14	12400	7120	22189
	15	11900	7640	25036
	16	15100	7280	24517
	17	15100	6570	23261
	18	15200	5370	26195
	19	6940	4156	18788

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: Daily Average Flows were not available for Spring Creek.

TABLE A-6

DAILY AVERAGE STREAM FLOW (cfs)
CYCLE 5

	Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Jim Woodruff[2] Lock & Dam
Sept. 17	4600	1730	10579
18	9980	1950	10578
19	9970	2300	10563
20	10200	2380	10582
21	8220	2360	10029
22	4000	2480	9870
23	964	2410	9444
24	1377	1900	9870
25	8185	1680	9444
26	8998	1800	9654
27	8767	1610	9582
28	8792	1570	9368
29	8690	1670	9329
30	1601	1690	9350

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: Daily Average Flows were not available for Spring Creek.

TABLE A-7

DAILY AVERAGE STREAM FLOW (cfs)
CYCLE 6

		Chattahoochee[1] River at Andrews Lock & Dam	Flint River[1] at Newton, Ga.	Jim Woodruff[2] Lock & Dam
Nov.	19	1000	NA	7579
	20	4170		7475
	21	6030		7352
	22	5830		7575
	23	6030		7575
	24	5990		7332
	25	2500		7390
	26	928		7254
	27	3890		7349
	28	6420		7432
	29	6140		7461
	30	6220		7695
Dec.	1	4000		NA
	2	986	↓	NA

Source:

[1] USGS, Water Resources Division, Doraville, Georgia

[2] U.S. Corps of Engineers, Mobile, Alabama

Note: Daily average flows were not available for Spring Creek or the Flint River.

APPENDIX B

METEOROLOGICAL DATA

LIST OF TABLES

TABLE B-1

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I

MISCELLANEOUS DATA

PARAMETER NAME (UNITS)	STATION 01 4/17/78	STATION 02 4/18/78	STATION 03 4/19/78	STATION 04 4/18/78	STATION 05 4/17/78	STATION 06 4/18/78	STATION 07 4/17/78
METEOROLOGICAL DATA							
CLOUD COVER (PERCENT)	20.	100.	100.	100.	30.	100.	0.
WIND VELOCITY (MPH)	5.0	5.0	0.0	0.0	5.0	7.5	7.5
WIND DIRECTION (DEG FM TRUE N. CW)	160	210	--	--	150	180	240

PARAMETER NAME (UNITS)	STATION 08 4/19/78	STATION 09 4/19/78	STATION 10 4/20/78	STATION 11 4/20/78	STATION 12 4/20/78	STATION 13 4/20/78	STATION 14 4/20/78
METEOROLOGICAL DATA							
CLOUD COVER (PERCENT)	0.	0.	1.	0.	10.	2.	5.
WIND VELOCITY (MPH)	10.0	5.0	10.0	5.0	7.5	7.5	5.0
WIND DIRECTION (DEG FM TRUE N. CW)	250	240	330	340	330	280	310

PARAMETER NAME (UNITS)	STATION 15 4/21/78	STATION 16 4/21/78	STATION 17 4/21/78	STATION 18 4/19/78	STATION 19 4/19/78	STATION A0 4/17/78	STATION B0 4/17/78
METEOROLOGICAL DATA							
CLOUD COVER (PERCENT)	0.	0.	0.	0.	0.	30.	30.
WIND VELOCITY (MPH)	5.0	5.0	5.0	10.0	12.5	10.0	0.0
WIND DIRECTION (DEG FM TRUE N. CW)	260	0	0	220	210	170	--

TABLE B-2a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-79-C-0101) PHASE I, CYCLE 2

MISCELLANEOUS DATA

PARAMETER NAME (UNITS)	STATION 01 6/ 7/78	STATION 02 6/ 7/78	STATION 03 6/ 7/78	STATION 04 6/ 7/78	STATION 05 6/ 7/78	STATION 06 6/ 7/78	STATION 07 6/ 6/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	32.0	31.0	31.0	28.0	31.0	29.0	27.0
CLOUD COVER (PERCENT)	50.	70.	70.	50.	20.	20.	100.
WIND VELOCITY (MPH)	7.5	7.5	5.0	5.0	7.5	5.0	10.0
WIND DIRECTION (DEG FM TRUE N. CW)	160	190	210	170	150	180	140

PARAMETER NAME (UNITS)	STATION 08 6/ 6/78	STATION 09 6/ 6/78	STATION 10 6/ 6/78	STATION 11 6/ 6/78	STATION 12 6/ 7/78	STATION 13 6/ 5/78	STATION 14 6/ 5/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	29.0	33.0	33.0	28.0	32.0	29.0	29.0
CLOUD COVER (PERCENT)	100.	80.	80.	70.	30.	95.	70.
WIND VELOCITY (MPH)	7.5	0.0	0.0	5.0	2.5	5.0	5.0
WIND DIRECTION (DEG FM TRUE N. CW)	190	--	--	20	200	190	220

PARAMETER NAME (UNITS)	STATION 15 6/ 5/78	STATION 16 6/ 5/78	STATION 17 6/ 5/78	STATION 18 6/ 6/78	STATION 19 6/ 6/78	STATION A0 6/ 7/78	STATION B0 6/ 7/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	28.0	29.0	28.0	30.0	30.0	32.5	31.0
CLOUD COVER (PERCENT)	95.	95.	95.	50.	60.	60.	50.
WIND VELOCITY (MPH)	5.0	7.5	2.5	0.0	0.0	5.0	5.0
WIND DIRECTION (DEG FM TRUE N. CW)	230	240	330	—	--	210	140

TABLE B-2b

PARAMETER NAME (UNITS)	STATION B1 6/ 5/78	STATION B2 6/ 6/78	STATION F3 6/ 6/78
METEOROLOGICAL DATA			
AIR TEMPERATURE (DEG C)	27.0	27.0	33.0
CLOUD COVER (PERCENT)	70.	85.	90.
WIND VELOCITY (MPH)	5.0	2.5	0.0
WIND DIRECTION (DEG FM TRUE N, CW)	230	30	--

TABLE B-3a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

MISCELLANEOUS DATA

PARAMETER NAME (UNITS)	STATION 01 7/19/78	STATION 02 7/19/78	STATION 03 7/19/78	STATION 04 7/19/78	STATION 05 7/19/78	STATION 06 7/20/78	STATION 07 7/20/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	33.0	32.0	32.0	33.0	32.0	26.0	29.0
CLOUD COVER (PERCENT)	10.	20.	10.	5.	0.	0.	5.
WIND VELOCITY (MPH)	5.0	5.0	0.0	0.0	0.0	2.5	10.0
WIND DIRECTION (DEG FM TRUE N, CW)	130	30	--	--	--	20	70

PARAMETER NAME (UNITS)	STATION 08 7/18/78	STATION 09 7/18/78	STATION 10 7/18/78	STATION 11 7/18/78	STATION 12 7/19/78	STATION 13 7/17/78	STATION 14 7/19/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	32.0	33.0	32.0	31.0	29.0	34.0	30.0
CLOUD COVER (PERCENT)	90.	50.	30.	30.	100.	30.	90.
WIND VELOCITY (MPH)	12.5	10.0	0.0	0.0	0.0	0.0	2.5
WIND DIRECTION (DEG FM TRUE N, CW)	230	180	--	--	--	--	10

PARAMETER NAME (UNITS)	STATION 15 7/17/78	STATION 16 7/17/78	STATION 17 7/17/78	STATION 18 7/18/78	STATION 19 7/19/78	STATION 80 7/19/78	STATION 90 7/19/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	32.0	30.0	29.0	31.0	29.0	32.0	33.0
CLOUD COVER (PERCENT)	40.	50.	70.	30.	0.	10.	10.
WIND VELOCITY (MPH)	0.0	0.0	0.0	0.0	0.0	7.5	0.0
WIND DIRECTION (DEG FM TRUE N, CW)	--	--	--	--	--	350	--

TABLE B-3b

PARAMETER NAME (UNITS)	STATION B1 7/16/73	STATION B2 7/17/73	STATION F3 7/19/73
METEOROLOGICAL DATA			
AIR TEMPERATURE (DEG C)	29.0	33.0	31.0
CLOUD COVER (PERCENT)	10.	20.	40.
WIND VELOCITY (MPH)	0.0	0.0	7.5
WIND DIRECTION (DEG FM TRUE N. CW)	--	--	180

TABLE B-4a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

MISCELLANEOUS DATA

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 02 8/17/78	STATION 03 8/17/78	STATION 04 8/17/78	STATION 05 8/17/78	STATION 06 8/17/78	STATION 07 8/16/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	31.0	32.0	32.0	33.0	33.0	33.0	34.0
CLOUD COVER (PERCENT)	5.	10.	50.	60.	80.	40.	50.
WIND VELOCITY (MPH)	5.0	2.5	0.0	0.0	0.0	0.0	0.0
WIND DIRECTION (DEG FM TRUE N, CW)	80	120	--	--	--	--	--

PARAMETER NAME (UNITS)	STATION 08 8/16/78	STATION 09 8/16/78	STATION 10 8/15/78	STATION 11 8/16/78	STATION 12 8/15/78	STATION 13 8/14/78	STATION 14 8/15/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	32.5	33.0	32.0	32.0	31.0	29.0	33.0
CLOUD COVER (PERCENT)	50.	50.	70.	40.	50.	90.	80.
WIND VELOCITY (MPH)	5.0	0.0	0.0	0.0	0.0	7.5	12.5
WIND DIRECTION (DEG FM TRUE N, CW)	160	--	0	--	--	270	220

PARAMETER NAME (UNITS)	STATION 15 8/14/78	STATION 16 8/14/78	STATION 17 8/14/78	STATION 18 8/16/78	STATION 19 8/16/78	STATION A0 8/17/78	STATION U0 8/17/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	31.0	32.0	31.0	31.0	30.0	32.0	29.0
CLOUD COVER (PERCENT)	90.	60.	0.	40.	60.	10.	0.
WIND VELOCITY (MPH)	5.0	0.0	0.0	0.0	0.0	5.0	5.0
WIND DIRECTION (DEG FM TRUE N, CW)	230	--	--	--	--	150	90

TABLE B-4b

PARAMETER NAME (UNITS)	STATION B1 8/14/78	STATION B2 8/14/78	STATION FE 8/16/78
METEOROLOGICAL DATA			
AIR TEMPERATURE (DEG C)	31.0	31.0	33.0
CLOUD COVER (PERCENT)	60.	60.	40.
WIND VELOCITY (MPH)	2.5	5.0	2.5
WIND DIRECTION (DEG FM TRUE N. CW)	220	190	230

TABLE B-5a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

MISCELLANEOUS DATA

PARAMETER NAME (UNITS)	STATION 01 9/27/78	STATION 02 9/27/78	STATION 03 9/27/78	STATION 04 9/27/78	STATION 05 9/27/78	STATION 06 9/27/78	STATION 07 9/27/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	27.0	28.0	29.0	29.0	29.0	30.0	29.0
CLOUD COVER (PERCENT)	100.	95.	100.	100.	100.	95.	35.
WIND VELOCITY (MPH)	5.0	5.0	5.0	0.0	5.0	5.0	7.5
WIND DIRECTION (DEG FM TRUE N, CW)	190	360	320	--	330	300	40

PARAMETER NAME (UNITS)	STATION 08 9/26/78	STATION 09 9/26/78	STATION 10 9/26/78	STATION 11 9/26/78	STATION 12 9/26/78	STATION 13 9/25/78	STATION 14 9/27/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	31.0	29.0	29.0	29.0	30.0	32.0	26.0
CLOUD COVER (PERCENT)	90.	95.	95.	95.	80.	70.	100.
WIND VELOCITY (MPH)	5.0	7.5	12.5	7.5	7.5	--	5.0
WIND DIRECTION (DEG FM TRUE N, CW)	50	40	50	110	30	--	100

PARAMETER NAME (UNITS)	STATION 15 9/25/78	STATION 16 9/25/78	STATION 17 9/25/78	STATION 18 9/26/78	STATION 19 9/26/78	STATION A0 9/27/78	STATION B0 9/27/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	32.0	31.0	30.0	29.0	28.0	28.0	29.0
CLOUD COVER (PERCENT)	60.	90.	90.	100.	95.	95.	100.
WIND VELOCITY (MPH)	5.0	0.0	0.0	0.0	0.0	0.0	0.0
WIND DIRECTION (DEG FM TRUE N, CW)	60	--	--	--	--	--	--

TABLE B-5b

PARAMETER NAME (UNITS)	STATION B1 9/25/78	STATION B2 9/25/78	STATION FE 9/26/78
METEOROLOGICAL DATA			
AIR TEMPERATURE (DEG C)	30.0	30.0	29.0
CLOUD COVER (PERCENT)	70.	90.	95.
WIND VELOCITY (MPH)	5.0	5.0	10.0
WIND DIRECTION (DEG FM TRUE N, CW)	100	60	60

TABLE B-6

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

MISCELLANEOUS DATA

PARAMETER NAME (UNITS)	STATION 01 11/29/78	STATION 02 11/29/78	STATION 03 11/29/78	STATION 04 11/29/78	STATION 05 11/29/78	STATION 06 11/29/78	STATION 07 11/30/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	22.0	22.0	22.0	23.0	22.0	22.0	19.0
CLOUD COVER (PERCENT)	100.	100.	100.	100.	100.	100.	100.
WIND VELOCITY (MPH)	0.0	0.0	0.0	0.0	0.0	7.5	0.0
WIND DIRECTION (DEG FM TRUE N. CW)	--	--	--	--	--	260	--

PARAMETER NAME (UNITS)	STATION 08 11/30/78	STATION 09 11/29/78	STATION 10 11/28/78	STATION 11 11/29/78	STATION 13 11/28/78	STATION 14 11/30/78	STATION 15 11/28/78
METEOROLOGICAL DATA							
AIR TEMPERATURE (DEG C)	20.0	20.0	21.0	20.0	21.0	--	21.0
CLOUD COVER (PERCENT)	100.	100.	100.	100.	75.	100.	100.
WIND VELOCITY (MPH)	7.5	5.0	7.5	7.5	2.5	--	5.0
WIND DIRECTION (DEG FM TRUE N. CW)	320	340	10	350	60	--	350

PARAMETER NAME (UNITS)	STATION 16 11/28/78	STATION 17 11/28/78	STATION 18 11/30/78	STATION A0 11/29/78	STATION B0 11/29/78	STATION FS 11/29/78
METEOROLOGICAL DATA						
AIR TEMPERATURE (DEG C)	21.0	20.0	20.0	22.0	22.0	20.0
CLOUD COVER (PERCENT)	100.	100.	100.	100.	100.	100.
WIND VELOCITY (MPH)	0.0	5.0	0.0	0.0	0.0	5.0
WIND DIRECTION (DEG FM TRUE N. CW)	--	320	--	--	--	330

APPENDIX C

IN SITU DATA

LIST OF TABLES

TABLE C-1a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 4/17/78	STATION 01 4/17/78	STATION 01 4/17/78	STATION 01 4/17/78	STATION 01 4/17/78	STATION 01 4/17/78	STATION 01 4/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	8.0	8.0	9.0	9.0	9.0	9.0	7.0
WAVE HEIGHT (METERS)	--	--	0.01	--	--	--	--
CURRENT SPEED (FPS)	--	--	3.6	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	330	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	25.	25.	50.	50.	50.	50.	75.
SAMPLE DEPTH (METERS)	0.3	7.0	--	0.3	1.0	9.0	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	0.6	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	1.0	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.0	17.0	--	19.0	19.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	60.	60.	--	51.	51.	50.	50.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.1	9.1	--	9.2	9.3	9.4	9.0
PH (STD UNITS)	7.60	7.30	--	7.30	7.70	7.40	7.90

TABLE C-1b

PARAMETER NAME (UNITS)	STATION 01 4/17/78	STATION 02 4/18/78	STATION 02 4/18/78	STATION 02 4/18/78	STATION 02 4/19/78	STATION 02 4/19/78	STATION 02 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	7.0	3.0	3.0	2.9	2.9	2.9	2.9
WAVE HEIGHT (METERS)	--	--	--	0.04	--	--	--
CURRENT SPEED (FPS)	--	--	--	2.0	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	30	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	75.	25.	25.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	6.0	0.3	2.0	--	0.3	1.0	2.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.5	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.2	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.0	19.0	19.0	--	19.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	65.	62.	63.	--	62.	62.	62.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.1	8.6	8.6	--	8.5	8.5	8.5
PH (STD UNITS)	7.50	7.10	7.10	--	7.35	7.25	7.20

TABLE C-1c

PARAMETER NAME (UNITS)	STATION 02 4/18/78	STATION 02 4/18/78	STATION 03 4/18/78	STATION 03 4/18/78	STATION 03 4/18/78	STATION 03 4/18/78	STATION 03 4/18/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	3.0	3.0	5.0	5.0	5.0	4.0	4.0
WAVE HEIGHT (METERS)	--	--	--	--	0.03	--	--
CURRENT SPEED (FPS)	--	--	--	--	2.3	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	20	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	75.	75.	25.	25.	50.	50.	50.
SAMPLE DEPTH (METERS)	0.3	2.0	0.3	4.0	--	0.3	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	0.5	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	1.2	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.5	18.5	19.0	18.5	--	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	62.	62.	52.	63.	--	61.	61.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.6	8.7	9.1	9.0	--	9.4	9.4
PH (STD UNITS)	7.15	7.10	7.40	7.00	--	7.40	7.20

TABLE C-1d

PARAMETER NAME (UNITS)	STATION 03 4/18/78	STATION 03 4/19/78	STATION 03 4/18/78	STATION 03 4/18/78	STATION 04 4/19/78	STATION 04 4/18/78	STATION 04 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	5.0	5.0	6.0	6.0	6.0	6.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.05	--
CURRENT SPEED (FPS)	--	--	--	--	--	2.7	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	321	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	75.	75.	25.	25.	30.	50.
SAMPLE DEPTH (METERS)	3.0	0.3	4.0	0.3	5.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	0.5	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	1.1	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	19.0	19.0	19.0	18.5	13.5	--	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	61.	62.	62.	70.	70.	--	69.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.3	8.9	8.8	9.2	9.1	--	8.9
PH (STD UNITS)	7.20	7.10	7.20	7.20	7.20	--	7.00

TABLE C-1e

PARAMETER NAME (UNITS)	STATION 04 4/18/78	STATION 04 4/18/78	STATION 04 4/13/78	STATION 04 4/19/78	STATION 05 4/17/78	STATION 05 4/17/78	STATION 05 4/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	5.0	5.0	7.0	7.0	6.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	0.01
CURRENT SPEED (FPS)	--	--	--	--	--	--	3.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	340
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	75.	75.	25.	25.	50.
SAMPLE DEPTH (METERS)	1.0	5.0	0.3	4.0	0.3	6.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	0.6
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	19.0	19.0	19.5	18.5	20.0	20.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	70.	70.	61.	61.	70.	71.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.0	9.1	9.0	9.0	9.1	9.0	--
PH (STD UNITS)	7.10	7.30	7.20	7.20	7.30	7.20	--

TABLE C-1f

PARAMETER NAME (UNITS)	STATION 05 4/17/78	STATION 05 4/17/78	STATION 05 4/17/78	STATION 05 4/17/78	STATION 05 4/17/78	STATION 06 4/19/78	STATION 06 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	7.0	7.0	6.0	6.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	--
CURRENT SPEED (FPS)	--	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	75.	75.	25.	25.
SAMPLE DEPTH (METERS)	0.3	1.0	5.0	0.3	6.0	0.3	5.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	20.0	20.0	19.0	19.5	19.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	69.	69.	71.	69.	71.	69.	69.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.0	9.0	9.9	9.0	8.9	8.0	8.8
PH (STD UNITS)	7.30	7.40	7.30	7.20	7.10	7.30	6.80

TABLE C-1g

PARAMETER NAME (UNITS)	STATION 06 4/19/78	STATION 06 4/18/78	STATION 06 4/19/78	STATION 06 4/19/78	STATION 06 4/19/78	STATION 06 4/19/78	STATION 07 4/19/79
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	6.0	8.0	9.0	2.0
WAVE HEIGHT (METERS)	0.05	--	--	--	--	--	--
CURRENT SPEED (FPS)	2.2	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	360	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	75.	75.	10.
SAMPLE DEPTH (METERS)	--	0.3	1.0	5.0	0.3	7.0	0.3
SECCHI DISK TRANSPARENCY (METERS)	0.6	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	1.1	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	19.0	19.0	19.0	19.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	70.	70.	70.	69.	70.	62.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	690
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	9.1	9.0	8.9	8.7	8.6	9.9
PH (STD UNITS)	--	7.10	7.10	7.20	7.30	7.19	7.00

TABLE C-1h

PARAMETER NAME (UNITS)	STATION 07 4/19/78	STATION 07 4/19/78	STATION 07 4/19/78	STATION 07 4/19/78	STATION 07 4/19/78	STATION 07 4/19/78	STATION 07 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	2.0	5.0	5.0	5.0	5.0	2.0	2.0
WAVE HEIGHT (METERS)	--	0.02	--	--	--	--	--
CURRENT SPEED (FPS)	--	1.7	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	10	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	10.	50.	50.	50.	50.	75.	75.
SAMPLE DEPTH (METERS)	1.0	--	0.3	1.0	4.0	0.3	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.5	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	1.3	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.0	--	18.0	19.0	18.0	20.0	19.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	62.	--	53.	63.	65.	71.	71.
OXIDATION REDUCTION POTENTIAL (MV)	480	--	440	480	460	450	460
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.9	--	8.9	8.8	8.7	9.0	9.0
PH (STD UNITS)	7.10	--	7.20	7.00	7.00	7.10	7.10

TABLE C-1i

PARAMETER NAME (UNITS)	STATION 08 4/19/78	STATION 08 4/19/78	STATION 08 4/19/78	STATION 09 4/19/78	STATION 09 4/19/78	STATION 09 4/19/78	STATION 09 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	2.0	2.0	2.0	6.0	6.0	6.0	5.0
WAVE HEIGHT (METERS)	0.03	--	--	0.15	--	--	--
CURRENT SPEED (FPS)	1.6	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	20	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	0.3	1.0	--	0.3	1.0	5.0
SECCHI DISK TRANSPARENCY (METERS)	0.6	--	--	0.5	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	1.1	--	--	1.4	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	21.0	21.0	--	20.0	20.0	20.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	68.	68.	--	70.	71.	72.
OXIDATION REDUCTION POTENTIAL (MV)	--	450	430	--	510	500	450
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	8.8	8.8	--	8.3	9.3	9.2
PH (STD UNITS)	--	7.30	7.10	--	7.03	7.10	7.10

TABLE C-1j

PARAMETER NAME (UNITS)	STATION 10 4/20/78	STATION 10 4/20/78	STATION 10 4/20/78	STATION 10 4/20/78	STATION 11 4/20/78	STATION 11 4/20/78	STATION 11 4/20/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	2.6	2.6	2.6	2.6	7.0	7.0	7.0
WAVE HEIGHT (METERS)	0.10	--	--	--	0.20	--	--
CURRENT SPEED (FPS)	0.0	--	--	--	0.0	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM P-BK LK UPST)	50.	50.	50.	50.	80.	80.	80.
SAMPLE DEPTH (METERS)	--	0.3	1.0	1.6	--	0.3	1.0
SECCHI DISK TRANSPARENCY (METERS)	0.4	--	--	--	0.5	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	1.1	--	--	--	1.1	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	18.0	19.0	18.0	--	19.5	19.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	58.	59.	58.	--	71.	71.
OXIDATION REDUCTION POTENTIAL (MV)	--	500	500	500	--	460	460
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	8.0	9.0	8.0	--	8.0	9.0
PH (STD UNITS)	--	6.70	6.70	6.70	--	7.10	7.10

TABLE C-1k

PARAMETER NAME (UNITS)	STATION 11 4/20/78	STATION 12 4/20/78	STATION 12 4/20/78	STATION 12 4/20/78	STATION 12 4/20/78	STATION 12 4/20/78	STATION 12 4/20/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	7.0	3.0	3.0	1.2	1.2	1.2	1.4
WAVE HEIGHT (METERS)	--	--	--	0.02	--	--	--
CURRENT SPEED (FPS)	--	--	--	0.0	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	80.	30.	30.	60.	60.	60.	90.
SAMPLE DEPTH (METERS)	6.0	0.3	2.0	--	0.3	0.6	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	> 1.2	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	> 1.2	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	19.0	22.0	22.0	--	22.0	22.0	22.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	70.	100.	100.	--	99.	99.	100.
OXIDATION REDUCTION POTENTIAL (MV)	480	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	9.0	9.0	--	9.2	9.2	9.2
PH (STD UNITS)	7.10	7.60	7.90	--	7.70	7.80	7.90

TABLE C-11

PARAMETER NAME (UNITS)	STATION 12 4/20/78	STATION 13 4/20/78	STATION 13 4/20/78	STATION 13 4/20/78	STATION 13 4/20/78	STATION 14 4/20/78	STATION 14 4/20/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	1.4	5.5	5.5	5.5	5.5	3.0	3.0
WAVE HEIGHT (METERS)	--	0.20	--	--	--	--	--
CURRENT SPEED (FPS)	--	0.0	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	80.	30.	30.	30.	30.	30.	30.
SAMPLE DEPTH (METERS)	0.7	--	0.3	1.0	4.5	0.3	2.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.7	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	2.0	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	22.0	--	21.0	21.0	20.5	20.5	20.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	100.	--	95.	95.	80.	145.	145.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	460	480	470	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.2	--	8.2	8.2	7.7	7.5	7.4
PH (STD UNITS)	--	--	7.50	7.40	7.50	7.70	7.70

TABLE C-1m

PARAMETER NAME (UNITS)	STATION 14 4/20/78	STATION 14 4/20/78	STATION 14 4/20/78	STATION 14 4/20/78	STATION 14 4/20/78	STATION 14 4/20/78	STATION 15 4/21/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	3.0	3.0	3.0	3.0	3.0	3.0	6.0
WAVE HEIGHT (METERS)	0.03	--	--	--	--	--	--
CURRENT SPEED (FPS)	0.0	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	75.	75.	35.
SAMPLE DEPTH (METERS)	--	0.3	1.0	2.0	0.3	2.0	0.3
SECCHI DISK TRANSPARENCY (METERS)	0.8	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	2.0	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	20.5	20.5	20.5	20.5	20.0	21.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	142.	142.	142.	145.	145.	95.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	470
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	7.6	7.6	7.4	7.6	7.1	7.5
PH (STD UNITS)	--	7.70	7.50	7.70	7.70	7.70	7.30

TABLE C-1n

PARAMETER NAME (UNITS)	STATION 15 4/21/78	STATION 15 4/21/78	STATION 15 4/21/78	STATION 15 4/21/78	STATION 15 4/21/78	STATION 15 4/21/78	STATION 15 4/21/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	10.0	10.0	10.0	10.0	3.0	3.0
WAVE HEIGHT (METERS)	--	0.02	--	--	--	--	--
CURRENT SPEED (FPS)	--	0.0	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	35.	50.	50.	50.	50.	65.	65.
SAMPLE DEPTH (METERS)	5.0	--	0.3	1.0	9.0	0.3	2.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.7	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	1.5	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	20.5	--	21.0	21.0	21.5	21.0	20.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	96.	--	90.	90.	90.	95.	95.
OXIDATION REDUCTION POTENTIAL (MV)	240	--	490	460	470	460	470
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	--	7.3	7.1	7.1	7.3	7.3
PH (STD UNITS)	7.30	--	7.10	7.20	7.50	7.10	7.10

TABLE C-1o

PARAMETER NAME (UNITS)	STATION 16 4/21/78	STATION 16 4/21/78	STATION 16 4/21/78	STATION 16 4/21/78	STATION 16 4/21/78	STATION 15 4/21/78	STATION 15 4/21/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	7.0	7.0	7.0	7.0	4.0
WAVE HEIGHT (METERS)	--	--	0.02	--	--	--	--
CURRENT SPEED (FPS)	--	--	1.3	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	100	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	20.	20.	50.	50.	50.	50.	63.
SAMPLE DEPTH (METERS)	0.3	4.0	--	0.3	1.0	6.0	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	1.0	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	2.1	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	20.5	20.5	--	20.5	20.5	20.5	20.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.	99.	--	96.	96.	90.	99.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.5	7.5	--	7.5	7.4	7.4	7.7
PH (STD UNITS)	7.40	7.30	--	7.10	7.30	7.40	7.20

TABLE C-1p

PARAMETER NAME (UNITS)	STATION 16 4/21/78	STATION 17 4/21/78	STATION 17 4/21/78	STATION 17 4/21/78	STATION 17 4/21/78	STATION 17 4/21/78	STATION 17 4/21/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	5.0	5.0	7.0	7.0	7.0	7.0
WAVE HEIGHT (METERS)	--	--	--	0.02	--	--	--
CURRENT SPEED (FPS)	--	--	--	2.9	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	140	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	65.	10.	10.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	3.0	0.3	4.0	--	0.3	1.0	6.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.9	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.9	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	20.5	20.0	20.0	--	20.0	20.0	20.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	98.	95.	95.	--	95.	95.	97.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	7.8	7.7	--	7.9	7.7	7.7
PH (STD UNITS)	7.20	7.20	7.30	--	7.30	7.20	7.30

TABLE C-1q

PARAMETER NAME (UNITS)	STATION 17 4/21/78	STATION 17 4/21/78	STATION 18 4/19/78	STATION 18 4/19/78	STATION 18 4/19/78	STATION 18 4/19/78	STATION 18 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	2.0	2.0	7.0	7.0	7.0	7.0	7.0
WAVE HEIGHT (METERS)	--	--	--	--	0.20	--	--
CURRENT SPEED (FPS)	--	--	--	--	3.0	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	20	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	90.	90.	25.	25.	50.	50.	50.
SAMPLE DEPTH (METERS)	0.3	1.0	0.3	5.0	--	0.3	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	0.5	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	1.1	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	20.0	20.0	21.0	21.0	--	21.4	21.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.	95.	95.	98.	--	90.	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.8	7.8	8.6	8.6	--	8.7	8.7
PH (STD UNITS)	7.20	7.20	7.30	7.30	--	7.50	7.40

TABLE C-1r

PARAMETER NAME (UNITS)	STATION 18 4/19/78	STATION 18 4/19/78	STATION 18 4/19/78	STATION 19 4/19/78	STATION 19 4/19/78	STATION 19 4/19/78	STATION 19 4/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	7.0	7.0	7.0	5.0	5.0	8.0	9.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.12	--
CURRENT SPEED (FPS)	--	--	--	--	--	3.5	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	0	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XFROM R-BK LK UPST)	50.	90.	90.	20.	20.	50.	50.
SAMPLE DEPTH (METERS)	6.0	0.3	6.0	0.3	4.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	0.5	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	1.2	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	21.5	21.0	21.0	23.0	23.0	--	21.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	89.	85.	110.	111.	--	100.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.7	8.5	9.4	8.3	8.3	--	8.8
PH (STD UNITS)	7.40	7.30	7.30	7.30	7.30	--	7.40

TABLE C-1s

PARAMETER NAME (UNITS)	STATION 19 4/19/78	STATION 19 4/19/78	STATION 19 4/19/78	STATION 19 4/19/78	STATION A0 4/17/78	STATION A0 4/17/78	STATION B0 4/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	8.0	8.0	3.0	3.0	--	--	4.0
WAVE HEIGHT (METERS)	--	--	--	--	0.01	--	0.01
CURRENT SPEED (FPS)	--	--	--	--	3.2	--	1.5
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	20	--	330
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	90.	90.	--	--	50.
SAMPLE DEPTH (METERS)	1.0	7.0	0.3	2.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	21.5	21.5	21.5	21.4	--	19.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	105.	108.	90.	91.	--	65.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	530	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.8	8.7	9.0	9.0	--	9.2	--
PH (STD UNITS)	7.30	7.20	7.40	7.30	--	7.40	--

TABLE C-1t

PARAMETER NAME (UNITS)	STATION B0 4/17/78
HYDROLOGICAL DATA	
TOTAL DEPTH (METERS)	4.0
WAVE HEIGHT (METERS)	--
CURRENT SPEED (FPS)	--
CURRENT DIRECTION (DEG FM TRUE N)	--
PHYSICAL DATA	
MISCELLANEOUS DATA	
X-SECTION LOC (%FROM R-BK LK UPST)	50.
SAMPLE DEPTH (METERS)	1.0
SECCHI DISK TRANSPARENCY (METERS)	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--
FIELD MEASUREMENTS	
WATER TEMPERATURE (DEG C)	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.
OXIDATION REDUCTION POTENTIAL (MV)	380
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.3
PH (STD UNITS)	7.60

TABLE C-2a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 6/ 7/78	STATION 01 6/ 7/78	STATION 02 6/ 7/78	STATION 02 6/ 7/78	STATION 03 6/ 7/78	STATION 03 6/ 7/78	STATION 04 6/ 7/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	4.0	4.0	5.0	5.0	4.0
WAVE HEIGHT (METERS)	0.02	--	0.00	--	0.02	--	0.03
CURRENT SPEED (FPS)	3.0	--	3.0	--	2.5	--	3.5
CURRENT DIRECTION (DEG FM TRUE N)	330	--	30	--	20	--	320
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	0.4	--	0.3	--	0.2	--	0.3
DEPTH OF 1% SURFACE LIGHT (METERS)	1.6	--	0.9	--	0.8	--	0.9
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	24.0	--	23.0	--	24.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	60.	--	60.	--	60.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	7.3	--	8.0	--	7.3	--
PH (STD UNITS)	--	7.50	--	7.00	--	6.90	--

TABLE C-2b

PARAMETER NAME (UNITS)	STATION 04 6/ 7/78	STATION 05 6/ 7/78	STATION 05 6/ 7/78	STATION 05 6/ 7/78	STATION 06 6/ 7/78	STATION 07 6/ 6/78	STATION 07 6/ 6/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	5.0	5.0	6.0	6.0	8.0	9.0
WAVE HEIGHT (METERS)	--	0.03	--	0.02	--	0.10	--
CURRENT SPEED (FPS)	--	0.5	--	0.3	--	2.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	340	--	360	--	10	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM P-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.1	--	0.1	--	0.2	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	0.5	--	0.3	--	0.6	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	24.0	--	24.0	--	24.0	--	25.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	61.	--	70.	--	65.	--	69.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	470
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	--	6.8	--	6.9	--	7.5
PH (STD UNITS)	7.20	--	6.90	--	6.90	--	7.00

TABLE C-2c

PARAMETER NAME (UNITS)	STATION 07 6/ 6/78	STATION 07 6/ 6/78	STATION 07 6/ 6/78	STATION 09 6/ 6/78	STATION 08 6/ 6/78	STATION 08 6/ 6/78	STATION 09 6/ 6/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	8.0	8.0	9.0	3.0	3.0	3.0	6.0
WAVE HEIGHT (METERS)	--	--	--	0.01	--	--	0.00
CURRENT SPEED (FPS)	--	--	--	0.5	--	--	0.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	60	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	3.0	5.0	7.0	--	1.0	2.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.2	--	--	0.5
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	0.7	--	--	1.0
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	25.0	24.0	24.0	--	25.0	25.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	70.	70.	70.	--	71.	71.	--
OXIDATION REDUCTION POTENTIAL (MV)	490	480	460	--	490	500	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	7.1	7.0	--	7.1	7.0	--
PH (STD UNITS)	7.00	7.00	7.00	--	7.00	7.00	--

TABLE C-2d

PARAMETER NAME (UNITS)	STATION 09 6/ 6/78	STATION 09 6/ 6/76	STATION 09 6/ 6/78	STATION 09 6/ 6/78	STATION 09 5/ 6/78	STATION 10 6/ 6/79	STATION 10 6/ 6/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	6.0	6.0	2.0	2.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.00	--
CURRENT SPEED (FPS)	--	--	--	--	--	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM P-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	2.0	3.0	4.0	5.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	0.5	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	1.1	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	26.0	25.0	25.0	25.0	25.0	--	26.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	87.	87.	87.	89.	90.	--	85.
OXIDATION REDUCTION POTENTIAL (MV)	440	430	430	440	450	--	390
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.5	6.5	6.4	6.2	6.1	--	7.2
PH (STD UNITS)	7.30	7.10	7.10	7.10	7.10	--	8.30

TABLE C-2e

PARAMETER NAME (UNITS)	STATION 10 6/ 6/78	STATION 11 6/ 6/78	STATION 11 6/ 6/78	STATION 11 6/ 6/78	STATION 11 6/ 6/78	STATION 11 6/ 6/78	STATION 11 6/ 6/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	2.0	6.0	6.0	6.0	6.0	6.0	6.0
WAVE HEIGHT (METERS)	--	0.02	--	--	--	--	--
CURRENT SPEED (FPS)	--	0.0	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM P-BK LK UPST)	50.	90.	80.	80.	80.	90.	90.
SAMPLE DEPTH (METERS)	1.0	--	1.0	2.0	3.0	4.0	5.0
SECCHI DISK TRANSPARENCY (METERS)	--	1.0	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	2.3	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	26.0	--	25.0	25.0	25.0	25.0	25.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	85.	--	128.	113.	89.	89.	95.
OXIDATION REDUCTION POTENTIAL (MV)	430	--	400	410	410	440	460
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	--	7.1	6.4	6.0	5.4	5.6
PH (STD UNITS)	7.50	--	7.60	7.50	7.20	7.10	7.00

TABLE C-2f

PARAMETER NAME (UNITS)	STATION 12 6/ 7/78	STATION 12 6/ 7/78	STATION 13 6/ 5/78	STATION 13 6/ 5/78	STATION 13 6/ 5/78	STATION 13 6/ 5/78	STATION 13 6/ 5/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	1.2	1.2	5.0	5.0	5.0	5.0	5.0
WAVE HEIGHT (METERS)	0.01	--	0.05	--	--	--	--
CURRENT SPEED (FPS)	0.0	--	0.0	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	30.	30.	30.	30.	30.
SAMPLE DEPTH (METERS)	--	0.6	--	0.3	1.0	2.0	3.0
SECCHI DISK TRANSPARENCY (METERS)	1.2	--	1.1	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	1.2	--	3.0	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	30.0	--	27.0	28.0	27.0	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	100.	--	147.	147.	147.	148.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	340	370	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	9.2	--	9.1	9.0	7.7	7.0
PH (STD UNITS)	--	8.70	--	--	8.00	7.90	7.80

TABLE C-2g

PARAMETER NAME (UNITS)	STATION 13 6/ 5/78	STATION 14 6/ 5/78	STATION 14 6/ 5/78	STATION 15 6/ 5/78	STATION 15 6/ 5/78	STATION 15 6/ 5/78	STATION 15 6/ 5/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	3.0	3.0	10.0	10.0	10.0	10.0
WAVE HEIGHT (METERS)	--	0.04	--	0.04	--	--	--
CURRENT SPEED (FPS)	--	0.0	--	0.0	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	30.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	4.0	--	1.0	--	0.3	1.0	3.0
SECCHI DISK TRANSPARENCY (METERS)	--	1.4	--	0.8	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	3.0	--	2.1	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	26.0	--	26.0	--	27.0	27.0	26.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	150.	--	195.	--	135.	135.	140.
OXIDATION REDUCTION POTENTIAL (MV)	390	--	--	--	--	410	410
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.2	--	8.6	--	9.6	9.4	7.1
PH (STD UNITS)	7.30	--	7.90	--	--	7.90	7.40

TABLE C-2h

PARAMETER NAME (UNITS)	STATION 15 6/ 5/78	STATION 15 6/ 5/78	STATION 15 6/ 5/78	STATION 16 6/ 5/78	STATION 16 6/ 5/78	STATION 17 6/ 5/78	STATION 17 6/ 5/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	10.0	10.0	10.0	7.0	7.0	7.0	7.0
WAVE HEIGHT (METERS)	--	--	--	0.00	--	0.01	--
CURRENT SPEED (FPS)	--	--	--	0.5	--	2.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	100	--	140	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	5.0	7.0	9.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	1.2	--	1.1	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	2.5	--	1.8	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	26.0	26.0	25.0	--	26.0	--	25.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	140.	135.	135.	--	130.	--	115.
OXIDATION REDUCTION POTENTIAL (MV)	410	410	420	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	6.3	6.4	--	7.0	--	6.9
PH (STD UNITS)	7.20	7.10	7.10	--	7.30	--	7.30

TABLE C-2i

PARAMETER NAME (UNITS)	STATION 18 6/ 5/78	STATION 18 6/ 6/78	STATION 19 6/ 6/78	STATION 19 6/ 6/78	STATION A2 6/ 7/78	STATION A0 6/ 7/78	STATION B2 6/ 7/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	5.0	4.0	4.0	5.0
WAVE HEIGHT (METERS)	0.01	--	0.00	--	0.04	--	0.01
CURRENT SPEED (FPS)	3.0	--	3.0	--	2.5	--	3.0
CURRENT DIRECTION (DEG FM TRUE N)	20	--	360	--	20	--	330
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	90.	90.	20.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	0.6	--	0.6	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	2.0	--	1.4	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	26.0	--	26.0	--	24.1	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	130.	--	121.	--	60.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	420	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	7.3	--	6.1	--	7.7	--
PH (STD UNITS)	--	7.50	--	7.40	--	7.00	--

TABLE C-2j

PARAMETER NAME (UNITS)	STATION B0 6/ 7/78	STATION H1 6/ 5/78	STATION H2 6/ 6/78	STATION FE 6/ 6/78	STATION FE 6/ 6/78
HYDROLOGICAL DATA					
TOTAL DEPTH (METERS)	5.0	2.0	5.0	2.0	2.0
WAVE HEIGHT (METERS)	--	0.02	0.00	0.00	--
CURRENT SPEED (FPS)	--	0.0	0.0	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--
PHYSICAL DATA					
MISCELLANEOUS DATA					
X-SECTION LOC (%FROM R-BK LK UPST)	20.	--	--	15.	15.
SAMPLE DEPTH (METERS)	1.0	--	--	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--
FIELD MEASUREMENTS					
WATER TEMPERATURE (DEG C)	24.0	--	--	--	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	78.	--	--	--	85.
OXIDATION REDUCTION POTENTIAL (MV)	160	--	--	--	440
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.1	--	--	--	8.1
PH (STD UNITS)	7.00	--	--	--	7.90

TABLE C-3a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 7/19/78	STATION 01 7/19/78	STATION 02 7/19/78	STATION 02 7/19/78	STATION 03 7/19/78	STATION 03 7/19/78	STATION 04 7/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	4.0	3.0	3.0	6.0	6.0	5.0
WAVE HEIGHT (METERS)	0.01	--	0.01	--	0.02	--	0.01
CURRENT SPEED (FPS)	1.3	--	1.3	--	1.3	--	2.5
CURRENT DIRECTION (DEG FM TRUE N)	330	--	30	--	20	--	320
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	0.3	--	0.9	--	0.8	--	0.7
DEPTH OF 1% SURFACE LIGHT (METERS)	2.1	--	2.6	--	2.3	--	1.5
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	28.0	--	28.5	--	29.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	66.	--	67.	--	69.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	8.3	--	7.8	--	8.5	--
PH (STD UNITS)	--	7.35	--	7.40	--	7.60	--

TABLE C-3b

PARAMETER NAME (UNITS)	STATION 04 7/19/78	STATION 05 7/19/78	STATION 05 7/19/78	STATION 06 7/20/78	STATION 06 7/20/78	STATION 07 7/20/78	STATION 07 7/20/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	5.0	5.0	7.0	7.0
WAVE HEIGHT (METERS)	--	0.01	--	0.01	--	0.05	--
CURRENT SPEED (FPS)	--	2.0	--	0.5	--	1.3	--
CURRENT DIRECTION (DEG FM TRUE N)	--	340	--	360	--	10	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%F-CM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.5	--	0.6	--	0.7	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	1.0	--	1.5	--	1.7	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.5	--	28.5	--	28.0	--	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.	--	70.	--	77.	--	83.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	410
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.7	--	7.0	--	6.0	--	7.2
PH (STD UNITS)	7.70	--	7.50	--	7.10	--	7.20

TABLE C-3c

PARAMETER NAME (UNITS)	STATION 07 7/20/78	STATION 07 7/20/78	STATION 07 7/20/78	STATION 08 7/19/78	STATION 09 7/18/78	STATION 08 7/19/78	STATION 03 7/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	7.0	7.0	7.0	3.0	3.0	3.0	3.0
WAVE HEIGHT (METERS)	--	--	--	0.20	--	--	0.20
CURRENT SPEED (FPS)	--	--	--	0.6	--	--	0.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	220	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	3.0	5.0	6.0	--	1.0	2.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.8	--	--	0.7
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.6	--	--	1.7
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	--	29.0	29.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	83.	87.	87.	--	94.	97.	--
OXIDATION REDUCTION POTENTIAL (MV)	410	410	400	--	350	400	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.7	6.2	5.3	--	7.4	6.0	--
PH (STD UNITS)	7.20	7.20	7.20	--	7.30	7.20	--

TABLE C-3d

PARAMETER NAME (UNITS)	STATION 09 7/14/78	STATION 09 7/18/78	STATION 09 7/13/78	STATION 09 7/13/78	STATION 10 7/13/78	STATION 10 7/18/78	STATION 10 7/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	5.0	2.0	2.0	2.0
WAVE HEIGHT (METERS)	--	--	--	--	0.00	--	--
CURRENT SPEED (FPS)	--	--	--	--	0.0	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XFROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	2.0	3.0	4.0	--	1.0	1.5
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	0.8	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	1.8	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	31.0	29.5	29.0	29.0	--	30.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	90.	90.	92.	--	90.	88.
OXIDATION REDUCTION POTENTIAL (MV)	410	400	400	--	--	370	420
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.7	7.6	6.3	5.9	--	8.6	5.4
PH (STD UNITS)	7.90	7.60	7.30	--	--	9.00	7.70

TABLE C-3e

PARAMETER NAME (UNITS)	STATION 11 7/18/78	STATION 11 7/18/78	STATION 11 7/18/78	STATION 11 7/18/78	STATION 11 7/18/78	STATION 11 7/18/78	STATION 12 7/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	6.0	6.0	6.0	1.2
WAVE HEIGHT (METERS)	0.02	--	--	--	--	--	0.00
CURRENT SPEED (FPS)	0.0	--	--	--	--	--	0.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XERCY 3-PK LK UPST)	80.	80.	80.	80.	80.	80.	59.
SAMPLE DEPTH (METERS)	--	1.0	2.0	3.0	4.0	5.0	--
SECCHI DISK TRANSPARENCY (METERS)	1.0	--	--	--	--	--	> 1.2
DEPTH OF 1% SURFACE LIGHT (METERS)	3.0	--	--	--	--	--	> 1.2
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	30.0	29.0	29.0	28.5	28.5	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	125.	120.	110.	102.	102.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	350	--	300	--	370	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	8.6	6.9	5.0	4.5	3.3	--
PH (STD UNITS)	--	8.30	--	7.80	--	7.50	--

TABLE C-3f

PARAMETER NAME (UNITS)	STATION 12 7/19/78	STATION 13 7/17/78	STATION 13 7/17/78	STATION 13 7/17/78	STATION 13 7/17/78	STATION 13 7/17/78	STATION 13 7/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	1.2	5.0	6.0	6.0	5.0	6.0	6.0
WAVE HEIGHT (METERS)	--	0.00	--	--	--	--	--
CURRENT SPEED (FPS)	--	0.0	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM L-BK LK UPST)	50.	30.	30.	30.	30.	30.	30.
SAMPLE DEPTH (METERS)	0.5	--	1.0	2.0	3.0	4.0	5.0
SECCHI DISK TRANSPARENCY (METERS)	--	1.2	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	4.0	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	30.0	--	31.0	30.0	30.0	29.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	93.	--	150.	159.	150.	158.	160.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	310	--	330	--	340
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.7	--	9.6	7.3	6.7	5.2	3.9
PH (STD UNITS)	7.80	--	8.40	--	8.70	--	7.00

TABLE C-3g

PARAMETER NAME (UNITS)	STATION 14 7/19/78	STATION 14 7/19/78	STATION 15 7/17/78	STATION 15 7/17/78	STATION 15 7/17/78	STATION 15 7/17/78	STATION 15 7/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.5	4.5	8.0	8.0	8.0	8.0	8.0
WAVE HEIGHT (METERS)	0.01	--	0.02	--	--	--	--
CURRENT SPEED (FPS)	0.0	--	0.0	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	3.0	5.0	7.0
SECCHI DISK TRANSPARENCY (METERS)	2.0	--	1.1	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	4.0	--	3.3	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	28.5	--	31.0	29.0	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	200.	--	153.	160.	150.	155.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	300	310	330	382
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	9.0	--	9.9	5.5	4.6	3.6
PH (STD UNITS)	--	7.90	--	8.50	8.50	8.10	7.90

TABLE C-3h

PARAMETER NAME (UNITS)	STATION 15 7/17/78	STATION 15 7/17/78	STATION 17 7/17/78	STATION 17 7/17/78	STATION 18 7/18/78	STATION 18 7/18/78	STATION 19 7/19/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	3.0	4.0	4.0	4.0	3.0
WAVE HEIGHT (METERS)	0.00	--	0.00	--	0.01	--	0.01
CURRENT SPEED (FPS)	0.0	--	0.3	--	2.3	--	1.3
CURRENT DIRECTION (DEG FM TRUE N)	100	--	140	--	20	--	360
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	1.4	--	1.8	--	0.5	--	0.9
DEPTH OF 1% SURFACE LIGHT (METERS)	4.7	--	3.3	--	1.5	--	1.8
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	27.0	--	27.0	--	29.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	142.	--	135.	--	120.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	7.2	--	7.2	--	6.3	--
PH (STD UNITS)	--	7.70	--	7.60	--	7.60	--

TABLE C-3i

PARAMETER NAME (UNITS)	STATION 19 7/18/78	STATION A0 7/19/78	STATION A1 7/19/78	STATION B0 7/19/78	STATION B0 7/19/78	STATION B1 7/18/78	STATION B2 7/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	3.0	3.0	3.0	6.0	6.0	3.0	3.0
WAVE HEIGHT (METERS)	--	0.01	--	0.02	--	0.02	0.03
CURRENT SPEED (FPS)	--	1.0	--	1.3	--	0.0	0.0
CURRENT DIRECTION (DEG FM TRUE N)	--	20	--	330	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	90.	90.	20.	20.	--	--
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	--	29.0	--	29.0	--	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	120.	--	68.	--	103.	--	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	510	--	60	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	5.6	--	7.9	--	7.6	--	--
PH (STD UNITS)	7.30	--	7.00	--	7.20	--	--

TABLE C-3j

PARAMETER NAME (UNITS)	STATION FE 7/18/78	STATION FF 7/19/78
HYDROLOGICAL DATA		
TOTAL DEPTH (METERS)	3.0	3.0
WAVE HEIGHT (METERS)	0.50	--
CURRENT SPEED (FPS)	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--
PHYSICAL DATA		
MISCELLANEOUS DATA		
X-SECTION LOC (%FROM R-BK LK UPST)	15.	15.
SAMPLE DEPTH (METERS)	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--
FIELD MEASUREMENTS		
WATER TEMPERATURE (DEG C)	--	31.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	94.
OXIDATION REDUCTION POTENTIAL (MV)	--	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	10.9
PH (STD UNITS)	--	9.40

TABLE C-4a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE 1, CYCLE 4

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 01 8/17/78	STATION 01 8/17/78	STATION 01 8/17/78	STATION 01 8/17/78	STATION 01 8/17/78	STATION 01 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	3.0	3.0	6.0	6.0	6.0	6.0	5.0
WAVE HEIGHT (METERS)	--	--	0.01	--	--	--	--
CURRENT SPEED (FPS)	--	--	3.0	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	330	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	10.	10.	50.	50.	50.	50.	90.
SAMPLE DEPTH (METERS)	0.3	2.0	--	0.3	1.0	5.0	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	0.9	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	1.9	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	--	28.5	28.0	28.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.	75.	--	75.	75.	78.	75.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	7.4	--	7.0	7.0	7.2	7.2
PH (STD UNITS)	7.10	6.90	--	6.90	6.90	6.80	7.00

TABLE C-4b

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 02 8/17/78	STATION 02 8/17/78	STATION 02 8/17/78	STATION 02 8/17/78	STATION 02 8/17/78	STATION 02 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	6.0	6.0	6.0	6.0
WAVE HEIGHT (METERS)	--	--	--	0.02	--	--	--
CURRENT SPEED (FPS)	--	--	--	3.0	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	30	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	90.	10.	10.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	4.0	0.3	4.0	--	0.3	1.0	5.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.9	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.9	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	28.0	--	28.0	28.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	78.	75.	80.	--	75.	75.	80.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	7.4	7.4	--	7.5	7.5	7.5
PH (STD UNITS)	7.00	7.20	7.10	--	7.10	7.10	7.00

TABLE C-4c

PARAMETER NAME (UNITS)	STATION 02 8/17/78	STATION 02 8/17/78	STATION 03 8/17/78	STATION 03 8/17/78	STATION 03 8/17/78	STATION 03 8/17/78	STATION 03 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	6.0	6.0	6.0	6.0	6.0
WAVE HEIGHT (METERS)	--	--	--	--	0.04	--	--
CURRENT SPEED (FPS)	--	--	--	--	3.0	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	20	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	90.	90.	10.	10.	50.	50.	50.
SAMPLE DEPTH (METERS)	0.3	4.0	0.3	5.0	--	0.3	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	0.9	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	2.0	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	28.0	28.0	--	28.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.	80.	75.	80.	--	75.	75.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	7.4	7.8	7.8	--	7.8	7.8
PH (STD UNITS)	7.10	7.00	7.00	7.00	--	7.10	7.10

TABLE C-4d

PARAMETER NAME (UNITS)	STATION 03 8/17/78	STATION 03 8/17/78	STATION 03 8/17/78	STATION 04 8/17/78	STATION 04 8/17/78	STATION 04 8/17/78	STATION 04 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	5.0	5.0	5.0	5.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.03	--
CURRENT SPEED (FPS)	--	--	--	--	--	2.5	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	320	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	90.	90.	10.	10.	50.	50.
SAMPLE DEPTH (METERS)	5.0	0.3	4.0	0.3	4.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	0.7	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	1.7	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	28.5	29.0	29.0	--	28.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.	75.	80.	90.	90.	--	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.8	7.5	7.6	7.2	7.1	--	7.3
PH (STD UNITS)	7.10	7.10	7.10	7.20	7.00	--	7.20

TABLE C-4e

PARAMETER NAME (UNITS)	STATION 04 8/17/78	STATION 04 8/17/78	STATION 04 8/17/78	STATION 04 8/17/78	STATION 05 8/17/78	STATION 05 8/17/78	STATION 05 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	5.0	4.0	4.0	9.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	0.00
CURRENT SPEED (FPS)	--	--	--	--	--	--	2.5
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	340
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	90.	90.	10.	10.	50.
SAMPLE DEPTH (METERS)	1.0	4.0	0.3	4.0	0.3	3.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	0.7
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	1.5
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.5	28.5	28.5	28.5	28.5	28.5	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	90.	75.	80.	85.	85.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.1	7.2	7.4	7.4	7.0	7.0	--
PH (STD UNITS)	7.10	7.00	7.20	7.00	7.10	7.10	--

TABLE C-4f

PARAMETER NAME (UNITS)	STATION 05 8/17/78	STATION 05 8/17/78	STATION 05 8/17/78	STATION 05 8/17/78	STATION 05 8/17/78	STATION 06 8/17/78	STATION 06 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	9.0	9.0	9.0	4.0	4.0	--	6.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.01	--
CURRENT SPEED (FPS)	--	--	--	--	--	2.5	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	0	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	90.	90.	5.	10.
SAMPLE DEPTH (METERS)	0.3	1.0	8.0	0.3	3.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	1.0	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	2.2	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	29.0	29.0	--	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	80.	80.	90.	85.	85.	--	85.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	7.0	7.0	7.2	7.0	--	7.3
PH (STD UNITS)	7.10	7.10	7.00	7.10	7.10	--	7.10

TABLE C-4g

PARAMETER NAME (UNITS)	STATION 06 8/17/78	STATION 06 8/17/78	STATION 06 8/17/78	STATION 06 8/17/78	STATION 06 8/17/78	STATION 06 8/17/78	STATION 07 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	6.0	5.0	5.0	4.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	--
CURRENT SPEED (FPS)	--	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XFRCM R-BK LK UPST)	10.	50.	50.	50.	90.	90.	20.
SAMPLE DEPTH (METERS)	5.0	0.3	1.0	5.0	0.3	4.0	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.5	29.0	29.0	28.5	28.5	28.5	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	85.	85.	90.	85.	85.	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	380
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	6.8	6.9	7.0	7.3	7.3	7.0
PH (STD UNITS)	7.00	7.30	7.20	7.20	7.10	7.00	7.20

TABLE C-4h

PARAMETER NAME (UNITS)	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	6.0	6.0	6.0	8.0	8.0	8.0
WAVE HEIGHT (METERS)	--	--	--	--	0.01	--	--
CURRENT SPEED (FPS)	--	--	--	--	2.1	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	10	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	20.	40.	40.	40.	50.	60.	60.
SAMPLE DEPTH (METERS)	3.0	1.0	3.0	5.0	--	1.0	3.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	0.7	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	1.6	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	29.0	--	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	90.	90.	90.	--	90.	90.
OXIDATION REDUCTION POTENTIAL (MV)	370	380	370	400	--	440	390
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.9	6.8	6.8	6.7	--	6.8	6.8
PH (STD UNITS)	7.00	7.20	7.10	7.00	--	7.20	7.00

TABLE C-4i

PARAMETER NAME (UNITS)	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 07 8/16/78	STATION 08 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	8.0	8.0	8.0	8.0	8.0	8.0	2.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	0.00
CURRENT SPEED (FPS)	--	--	--	--	--	--	0.7
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	60
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	60.	60.	80.	80.	80.	80.	50.
SAMPLE DEPTH (METERS)	5.0	7.0	1.0	3.0	5.0	7.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	0.7
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	1.6
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	29.0	29.0	29.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	90.	90.	90.	90.	92.	--
OXIDATION REDUCTION POTENTIAL (MV)	370	380	420	460	400	390	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.8	6.7	7.0	6.9	6.8	6.7	--
PH (STD UNITS)	7.00	7.00	7.20	7.00	7.00	7.00	--

TABLE C-4j

PARAMETER NAME (UNITS)	STATION 09 8/16/78	STATION 09 8/16/78	STATION 09 8/16/78	STATION 09 8/16/78	STATION 09 8/16/78	STATION 09 8/16/78	STATION 10 8/15/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	2.0	6.0	6.0	6.0	6.0	--	1.8
WAVE HEIGHT (METERS)	--	0.01	--	--	--	--	0.00
CURRENT SPEED (FPS)	--	0.0	--	--	--	--	0.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	--	1.0	3.0	5.0	6.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	0.8	--	--	--	--	1.0
DEPTH OF 1% SURFACE LIGHT (METERS)	--	1.5	--	--	--	--	1.5
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.5	--	29.0	28.5	28.5	--	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	85.	--	85.	85.	85.	--	--
OXIDATION REDUCTION POTENTIAL (MV)	440	--	410	440	370	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.6	--	7.8	6.8	6.7	--	--
PH (STD UNITS)	7.60	--	8.00	7.40	7.10	--	--

TABLE C-4k

PARAMETER NAME (UNITS)	STATION 10 8/15/78	STATION 10 8/15/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	1.8	1.8	3.0	3.0	10.0	10.0	10.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	--
CURRENT SPEED (FPS)	--	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	20.	20.	40.	40.	40.
SAMPLE DEPTH (METERS)	0.3	1.0	1.0	2.0	1.0	3.0	5.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	30.0	30.0	30.0	29.5	30.0	29.5	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	93.	77.	140.	140.	140.	130.	130.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	330	320	310	340	360
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.4	8.8	8.8	8.6	9.0	8.8	6.8
PH (STD UNITS)	8.30	7.90	9.10	9.00	9.00	9.00	7.80

TABLE C-41

PARAMETER NAME (UNITS)	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78	STATION 11 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	10.0	10.0	6.0	6.0	6.0	6.0	6.0
WAVE HEIGHT (METERS)	--	--	0.01	--	--	--	--
CURRENT SPEED (FPS)	--	--	0.0	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	40.	40.	60.	60.	60.	60.	80.
SAMPLE DEPTH (METERS)	7.0	9.0	--	1.0	3.0	5.0	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	1.1	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	2.5	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	27.5	--	30.0	28.0	28.0	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	135.	140.	--	100.	85.	85.	100.
OXIDATION REDUCTION POTENTIAL (MV)	350	350	--	360	320	360	310
DISSOLVED OXYGEN, ELECTRODE (MG/L)	5.8	5.4	--	7.6	5.6	5.0	8.4
PH (STD UNITS)	7.30	7.30	--	8.80	8.10	7.20	8.80

TABLE C-4m

PARAMETER NAME (UNITS)	STATION 11 8/16/78	STATION 11 8/16/78	STATION 12 8/15/78	STATION 12 8/15/78	STATION 12 8/15/78	STATION 12 8/15/78	STATION 12 8/15/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	3.0	--	3.0	1.3	1.3
WAVE HEIGHT (METERS)	--	--	--	--	--	0.00	--
CURRENT SPEED (FPS)	--	--	--	--	--	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	80.	80.	20.	20.	20.	50.	50.
SAMPLE DEPTH (METERS)	3.0	5.0	0.3	0.6	2.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	> 1.3	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	> 1.3	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	30.0	--	30.0	--	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	85.	95.	90.	--	90.	--	95.
OXIDATION REDUCTION POTENTIAL (MV)	340	360	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	6.2	8.0	--	8.0	--	8.2
PH (STD UNITS)	8.00	8.20	8.10	--	8.10	--	8.30

TABLE C-4n

PARAMETER NAME (UNITS)	STATION 12 8/15/78	STATION 12 8/15/78	STATION 12 8/15/78	STATION 13 8/14/78	STATION 13 8/14/78	STATION 13 8/14/78	STATION 13 8/14/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	1.3	1.3	1.3	5.0	5.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	0.20	--	--	--
CURRENT SPEED (FPS)	--	--	--	0.0	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	80.	80.	30.	30.	30.	30.
SAMPLE DEPTH (METERS)	1.0	0.3	1.0	--	1.0	2.0	3.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	1.1	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.9	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	30.0	30.0	30.0	--	30.0	28.5	28.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.	90.	90.	--	130.	128.	137.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	330	--	350
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.1	8.6	8.6	--	10.4	9.4	9.0
PH (STD UNITS)	8.30	8.70	8.70	--	9.00	--	8.80

TABLE C-4o

PARAMETER NAME (UNITS)	STATION 13 8/14/78	STATION 14 8/15/78	STATION 14 8/15/78	STATION 14 8/15/78	STATION 14 8/15/78	STATION 14 8/15/78	STATION 14 8/15/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	3.0	3.0	5.0	5.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	0.00	--	--	--
CURRENT SPEED (FPS)	--	--	--	0.0	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	30.	30.	30.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	4.0	0.3	2.0	--	0.3	1.0	4.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.8	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.5	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	27.0	--	28.0	27.5	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	130.	180.	160.	--	127.	127.	129.
OXIDATION REDUCTION POTENTIAL (MV)	340	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	7.6	6.6	--	5.7	5.8	5.7
PH (STD UNITS)	8.20	7.60	7.40	--	7.00	7.00	7.00

TABLE C-4p

PARAMETER NAME (UNITS)	STATION 14 8/15/78	STATION 14 8/15/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	4.0	3.0	3.0	7.0	7.0	7.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	--
CURRENT SPEED (FPS)	--	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	80.	80.	15.	15.	35.	35.	35.
SAMPLE DEPTH (METERS)	0.3	3.0	1.0	2.0	1.0	3.0	5.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	27.0	30.0	28.0	28.5	28.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	150.	133.	130.	129.	125.	125.	125.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	320	350	320	350	360
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.4	7.0	10.8	8.8	9.2	7.8	7.2
PH (STD UNITS)	7.90	7.30	9.00	8.70	8.80	7.70	7.40

TABLE C-4q

PARAMETER NAME (UNITS)	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	7.0	8.0	8.0	8.0	8.0	8.0	7.0
WAVE HEIGHT (METERS)	--	0.10	--	--	--	--	--
CURRENT SPEED (FPS)	--	0.0	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XFROM R-BK LK UPST)	35.	50.	50.	50.	50.	50.	65.
SAMPLE DEPTH (METERS)	6.0	--	1.0	3.0	5.0	7.0	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.9	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	2.5	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	--	28.5	28.0	28.0	28.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	125.	--	120.	120.	120.	130.	120.
OXIDATION REDUCTION POTENTIAL (MV)	350	--	350	380	380	390	360
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	--	9.4	8.2	7.6	6.4	8.4
PH (STD UNITS)	7.40	--	8.70	7.80	7.40	7.40	8.50

TABLE C-4r

PARAMETER NAME (UNITS)	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78	STATION 15 8/14/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	7.0	7.0	7.0	8.0	8.0	8.0	8.0
WAVE HEIGHT (METERS)	--	--	--	--	--	--	--
CURRENT SPEED (FPS)	--	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	65.	65.	65.	85.	95.	85.	85.
SAMPLE DEPTH (METERS)	3.0	5.0	6.0	1.0	3.0	5.0	7.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	28.0	29.0	28.0	28.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	125.	127.	127.	120.	120.	125.	128.
OXIDATION REDUCTION POTENTIAL (MV)	390	350	350	340	380	370	360
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	7.0	6.8	8.2	7.6	7.2	6.8
PH (STD UNITS)	7.70	7.50	7.40	8.60	8.00	7.50	7.40

TABLE C-4s

PARAMETER NAME (UNITS)	STATION 16 8/14/78	STATION 16 8/14/78	STATION 16 8/14/78	STATION 16 8/14/78	STATION 16 8/14/78	STATION 16 8/14/78	STATION 16 8/14/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	5.0	5.0	5.0	6.0
WAVE HEIGHT (METERS)	--	--	0.00	--	--	--	--
CURRENT SPEED (FPS)	--	--	1.7	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	100	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	10.	10.	50.	50.	50.	50.	90.
SAMPLE DEPTH (METERS)	0.3	4.0	--	0.3	1.0	4.0	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	1.0	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	1.9	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	26.0	--	28.0	28.0	28.0	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	90.	--	90.	90.	90.	98.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	6.6	--	7.0	6.8	6.6	8.0
PH (STD UNITS)	7.50	7.40	--	7.60	7.40	7.50	7.60

TABLE C-4t

PARAMETER NAME (UNITS)	STATION 15 8/14/78	STATION 17 8/14/78	STATION 17 8/14/78	STATION 17 8/14/78	STATION 17 8/14/78	STATION 17 8/14/78	STATION 17 8/14/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	4.0	4.0	4.0	4.0
WAVE HEIGHT (METERS)	--	--	--	0.00	--	--	--
CURRENT SPEED (FPS)	--	--	--	1.8	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	140	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	90.	20.	20.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	5.0	0.3	5.0	--	0.3	1.0	3.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.7	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	1.3	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	28.0	--	28.0	28.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	103.	85.	90.	--	90.	90.	90.
OXIDATION REDUCTION POTENTIAL (MV).	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.8	6.6	6.6	--	6.8	6.4	6.6
PH (STD UNITS)	7.40	7.10	7.00	--	6.90	6.90	6.80

TABLE C-4u

PARAMETER NAME (UNITS)	STATION 17 8/14/78	STATION 17 8/14/78	STATION 18 8/16/78	STATION 18 8/16/78	STATION 18 8/16/78	STATION 18 8/16/78	STATION 18 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	3.0	3.0	5.0	5.0	5.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	--	0.02	--	--
CURRENT SPEED (FPS)	--	--	--	--	3.0	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	20	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-UK LK UPST)	80.	80.	10.	10.	50.	50.	50.
SAMPLE DEPTH (METERS)	0.3	1.0	0.3	4.0	--	0.3	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	0.9	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	2.0	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	29.0	29.0	--	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	87.	89.	110.	112.	--	105.	105.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.8	6.4	7.6	7.8	--	8.0	8.0
PH (STD UNITS)	7.00	7.00	7.50	7.50	--	7.50	7.50

TABLE C-4v

PARAMETER NAME (UNITS)	STATION 18 8/16/78	STATION 18 8/16/78	STATION 18 8/16/78	STATION 19 8/16/78	STATION 19 8/16/78	STATION 19 8/16/78	STATION 19 8/16/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	4.0	4.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.02	--
CURRENT SPEED (FPS)	--	--	--	--	--	3.5	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	360	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	90.	90.	20.	20.	50.	50.
SAMPLE DEPTH (METERS)	4.0	0.3	4.0	0.3	3.0	--	0.3
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	0.9	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	1.1	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	29.0	29.0	--	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	108.	110.	110.	120.	120.	--	112.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.0	8.0	8.2	7.2	7.3	--	7.6
PH (STD UNITS)	7.50	7.60	7.50	7.40	7.20	--	7.10

TABLE C-4w

PARAMETER NAME (UNITS)	STATION 19 8/16/78	STATION 19 8/16/78	STATION 19 8/16/78	STATION 19 8/16/78	STATION AC 8/17/78	STATION AO 8/17/78	STATION BO 8/17/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	--	0.03	--	0.00
CURRENT SPEED (FPS)	--	--	--	--	3.0	--	3.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	20	--	330
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XFROM R-BK LK UPST)	50.	50.	80.	80.	90.	90.	20.
SAMPLE DEPTH (METERS)	1.0	4.0	0.3	4.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	29.0	--	28.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	115.	118.	108.	110.	--	75.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	370	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.5	7.4	7.6	7.8	--	7.4	--
PH (STD UNITS)	7.10	7.10	7.20	7.00	--	7.10	--

TABLE C-4x

PARAMETER NAME (UNITS)	STATION B0 8/17/78	STATION B1 8/14/78	STATION B2 8/14/78	STATION FE 8/16/78	STATION FE 8/16/78
HYDROLOGICAL DATA					
TOTAL DEPTH (METERS)	5.0	2.0	3.0	5.0	5.0
WAVE HEIGHT (METERS)	--	0.03	0.09	0.01	--
CURRENT SPEED (FPS)	--	0.0	0.0	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--
PHYSICAL DATA					
MISCELLANEOUS DATA					
X-SECTION LOC (%FROM R-BK LK UPST)	20.	--	--	--	--
SAMPLE DEPTH (METERS)	1.0	--	--	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--	--
FIELD MEASUREMENTS					
WATER TEMPERATURE (DEG C)	28.5	--	--	--	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	80.	--	--	--	90.
OXIDATION REDUCTION POTENTIAL (MV)	330	--	--	--	390
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	--	--	--	7.4
PH (STD UNITS)	6.50	--	--	--	7.40

TABLE C-5a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 9/27/78	STATION 01 9/27/78	STATION 02 9/27/78	STATION 02 9/27/78	STATION 03 9/27/78	STATION 03 9/27/78	STATION 04 9/27/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	4.0	4.0	4.0	5.0	5.0	4.0
WAVE HEIGHT (METERS)	0.02	--	0.01	--	0.01	--	0.03
CURRENT SPEED (FPS)	2.0	--	2.5	--	2.0	--	2.0
CURRENT DIRECTION (DEG FM TRUE N)	330	--	30	--	20	--	320
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	1.4	--	1.2	--	1.2	--	0.9
DEPTH OF 1% SURFACE LIGHT (METERS)	2.8	--	2.4	--	2.2	--	1.5
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	27.5	--	27.5	--	27.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	80.	--	80.	--	80.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	8.0	--	9.1	--	8.1	--
PH (STD UNITS)	--	7.20	--	7.50	--	7.50	--

TABLE C-5b

PARAMETER NAME (UNITS)	STATION 04 9/27/78	STATION 05 9/27/78	STATION 05 9/27/78	STATION 05 9/27/78	STATION 06 9/27/78	STATION 07 9/27/78	STATION 07 9/27/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	4.0	4.0	5.0	5.0	9.0	9.0
WAVE HEIGHT (METERS)	--	0.01	--	0.01	--	0.02	--
CURRENT SPEED (FPS)	--	1.0	--	2.0	--	1.3	--
CURRENT DIRECTION (DEG FM TRUE N)	--	340	--	0	--	10	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	1.0	--	1.0	--	1.0	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	1.9	--	1.9	--	1.5	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	--	28.0	--	27.5	--	27.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	85.	--	90.	--	100.	--	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	390
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	--	7.6	--	7.2	--	7.2
PH (STD UNITS)	7.50	--	7.50	--	7.50	--	7.20

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TABLE C-5c

PARAMETER NAME (UNITS)	STATION 07 9/27/78	STATION 07 9/27/78	STATION 07 9/27/78	STATION 09 9/26/78	STATION 09 9/26/78	STATION 08 9/26/78	STATION 09 9/26/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	8.0	9.0	9.0	4.0	4.0	4.0	6.0
WAVE HEIGHT (METERS)	--	--	--	0.05	--	--	0.20
CURRENT SPEED (FPS)	--	--	--	0.1	--	--	0.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	60	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	3.0	5.0	7.0	--	1.0	3.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	1.1	--	--	0.8
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	2.0	--	--	2.8
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	27.5	27.5	27.0	--	29.5	28.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	95.	95.	--	100.	100.	--
OXIDATION REDUCTION POTENTIAL (MV)	360	380	340	--	440	510	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	7.1	7.4	--	7.2	6.8	--
PH (STD UNITS)	7.20	7.20	7.20	--	7.20	7.20	--

TABLE C-5d

PARAMETER NAME (UNITS)	STATION 09 9/26/78	STATION 09 9/26/78	STATION 09 9/26/78	STATION 10 9/26/78	STATION 10 9/26/78	STATION 11 9/26/78	STATION 11 9/26/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	5.0	1.0	1.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	0.20	--	0.20	--
CURRENT SPEED (FPS)	--	--	--	0.0	--	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (XFROM R-BK LK UPST)	50.	50.	50.	50.	50.	60.	60.
SAMPLE DEPTH (METERS)	1.0	3.0	5.0	--	0.5	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.7	--	0.9	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	> 1.0	--	2.4	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.5	28.0	24.0	--	28.5	--	28.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.	95.	95.	--	90.	--	135.
OXIDATION REDUCTION POTENTIAL (MV)	410	420	410	--	420	--	410
DISSOLVED OXY, IN. ELECTRODE (MG/L)	7.6	7.6	7.4	--	7.7	--	7.6
PH (STD UNITS)	7.50	7.50	7.30	--	7.70	--	9.10

TABLE C-5e

PARAMETER NAME (UNITS)	STATION 11 9/26/79	STATION 11 9/26/78	STATION 11 9/26/78	STATION 12 9/26/78	STATION 12 9/26/79	STATION 13 9/25/78	STATION 13 9/25/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	5.0	0.6	0.6	6.0	6.0
WAVE HEIGHT (METERS)	--	--	--	--	--	0.02	--
CURRENT SPEED (FPS)	--	--	--	--	--	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	60.	60.	60.	50.	50.	30.	30.
SAMPLE DEPTH (METERS)	2.0	3.0	4.0	--	0.3	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	> 0.6	--	1.0	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	> 0.6	--	2.4	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.5	28.5	28.5	--	30.0	--	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	135.	135.	135.	--	95.	--	165.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	420	--	--	--	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	7.3	7.3	--	9.5	--	7.4
PH (STD UNITS)	--	--	7.60	--	8.40	--	9.00

TABLE C-5f

PARAMETER NAME (UNITS)	STATION 13 9/25/78	STATION 13 9/25/78	STATION 14 9/27/78	STATION 14 9/27/78	STATION 15 9/25/78	STATION 15 9/25/78	STATION 15 9/25/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	4.0	4.0	8.0	8.0	8.0
WAVE HEIGHT (METERS)	--	--	0.00	--	0.01	--	--
CURRENT SPEED (FPS)	--	--	0.0	--	0.3	--	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	30.	30.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	3.0	5.0	--	1.0	--	1.0	3.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	1.0	--	1.2	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	3.0	--	2.3	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	29.0	28.5	--	25.5	--	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	165.	173.	--	210.	--	162.	162.
OXIDATION REDUCTION POTENTIAL (MV)	370	370	--	--	--	310	340
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.0	7.4	--	7.6	--	8.2	7.4
PH (STD UNITS)	8.30	8.20	--	7.50	--	8.40	9.00

TABLE C-5g

PARAMETER NAME (UNITS)	STATION 15 9/25/78	STATION 15 9/25/78	STATION 16 9/25/78	STATION 16 9/25/78	STATION 17 9/25/78	STATION 17 9/25/78	STATION 18 9/25/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	9.0	8.0	6.0	6.0	6.0	6.0	4.0
WAVE HEIGHT (METERS)	--	--	0.00	--	0.00	--	0.02
CURRENT SPEED (FPS)	--	--	0.2	--	0.5	--	2.0
CURRENT DIRECTION (DEG FM TRUE N)	--	--	100	--	140	--	20
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	5.0	7.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	1.7	--	2.6	--	1.1
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	4.3	--	5.8	--	2.4
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.0	28.0	--	28.0	--	27.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	165.	170.	--	145.	--	140.	--
OXIDATION REDUCTION POTENTIAL (MV)	350	320	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.5	7.4	--	7.1	--	7.1	--
PH (STD UNITS)	8.00	8.00	--	8.20	--	7.50	--

TABLE C-5h

PARAMETER NAME (UNITS)	STATION 19 9/26/78	STATION 19 9/26/78	STATION 19 9/26/78	STATION A0 9/27/78	STATION A0 9/27/78	STATION B0 9/27/78	STATION B0 9/27/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	6.0	6.0	3.0	3.0	3.0	3.0
WAVE HEIGHT (METERS)	--	0.01	--	0.01	--	0.00	--
CURRENT SPEED (FPS)	--	2.5	--	2.0	--	2.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	0	--	20	--	330	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	90.	90.	20.	20.
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	1.3	--	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	2.8	--	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	28.5	--	28.0	--	27.5	--	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	135.	--	130.	--	80.	--	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	450	--	80
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	--	6.0	--	8.2	--	7.9
PH (STD UNITS)	7.50	--	7.30	--	7.30	--	7.50

TABLE C-5i

PARAMETER NAME (UNITS)	STATION B1 9/25/78	STATION B2 9/25/78	STATION FE 9/26/78	STATION FF 9/26/78
HYDROLOGICAL DATA				
TOTAL DEPTH (METERS)	2.0	2.0	2.0	2.0
WAVE HEIGHT (METERS)	0.03	0.03	0.20	--
CURRENT SPEED (FPS)	0.0	--	0.0	--
CURRENT DIRECTION (DEG FM TRUE N)	--	--	--	--
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	--	--	15.	15.
SAMPLE DEPTH (METERS)	--	--	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	--
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	--	--	--	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	--	--	95.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	420
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	--	--	7.5
PH (STD UNITS)	--	--	--	7.50

TABLE C-6a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-79-C-0101) PHASE I, CYCLE 5

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 11/29/78	STATION 01 11/29/78	STATION 02 11/29/78	STATION 02 11/29/78	STATION 03 11/29/78	STATION 03 11/29/78	STATION 04 11/29/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	3.0	3.0	3.0	3.0	3.0	3.0	4.0
WAVE HEIGHT (METERS)	0.00	--	0.00	--	0.00	--	0.00
CURRENT SPEED (FPS)	1.0	--	1.0	--	1.2	--	1.7
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	--	1.0	--	1.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	0.9	--	0.9	--	0.9	--	0.9
DEPTH OF 1% SURFACE LIGHT (METERS)	2.6	--	2.5	--	1.2	--	2.2
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	--	18.0	--	18.0	--	19.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	181.	--	181.	--	190.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	9.1	--	9.5	--	9.4	--
PH (STD UNITS)	--	7.00	--	7.10	--	7.20	--

TABLE C-6b

PARAMETER NAME (UNITS)	STATION 04 11/29/78	STATION 05 11/29/78	STATION 05 11/29/78	STATION 06 11/29/78	STATION 06 11/29/78	STATION 07 11/30/78	STATION 07 11/30/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	4.0	3.5	3.5	4.0	4.0	6.5	6.5
WAVE HEIGHT (METERS)	--	0.00	--	0.01	--	0.00	--
CURRENT SPEED (FPS)	--	1.3	--	1.0	--	1.0	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	0.9	--	0.8	--	0.8	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	2.4	--	1.8	--	1.3	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.0	--	18.0	--	18.0	--	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	86.	--	102.	--	101.	--	112.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	--	--	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.3	--	8.6	--	8.2	--	9.4
PH (STD UNITS)	7.20	--	7.20	--	7.20	--	7.10

TABLE C-6c

PARAMETER NAME (UNITS)	STATION 07 11/30/78	STATION 07 11/30/78	STATION 08 11/30/78	STATION 08 11/30/78	STATION 08 11/30/78	STATION 08 11/30/78	STATION 09 11/29/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.5	6.5	3.5	3.5	3.5	3.5	6.0
WAVE HEIGHT (METERS)	--	--	0.00	--	--	--	0.05
CURRENT SPEED (FPS)	--	--	0.0	--	--	--	0.0
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	--	--	--	--	50.
SAMPLE DEPTH (METERS)	3.0	5.0	--	1.0	2.0	3.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	--	0.7	--	--	--	0.6
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	1.0	--	--	--	1.2
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	19.0	19.0	--	19.0	19.0	19.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	112.	112.	--	117.	117.	117.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	369	--	370	--	370	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.3	8.2	--	8.1	7.9	7.9	--
PH (STD UNITS)	--	7.10	--	7.30	--	7.30	--

TABLE C-6d

PARAMETER NAME (UNITS)	STATION 09 11/29/78	STATION 09 11/29/78	STATION 09 11/29/78	STATION 10 11/28/78	STATION 10 11/28/78	STATION 11 11/28/78	STATION 11 11/29/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	6.0	6.0	6.0	1.0	1.0	5.0	5.0
WAVE HEIGHT (METERS)	--	--	--	0.04	--	0.02	--
CURRENT SPEED (FPS)	--	--	--	0.0	--	0.0	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.	50.	85.	85.
SAMPLE DEPTH (METERS)	1.0	3.0	5.0	--	0.5	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	--	0.7	--	0.9	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	--	0.9	--	1.6	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.5	18.0	18.0	--	18.5	--	19.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	124.	118.	112.	--	97.	--	117.
OXIDATION REDUCTION POTENTIAL (MV)	390	--	370	--	400	--	420
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.8	7.0	7.2	--	8.4	--	9.4
PH (STD UNITS)	7.10	--	7.00	--	7.40	--	7.70

TABLE C-6e

PARAMETER NAME (UNITS)	STATION 11 11/28/78	STATION 11 11/28/78	STATION 13 11/28/78	STATION 13 11/28/78	STATION 13 11/28/78	STATION 13 11/29/78	STATION 13 11/29/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	5.0	8.5	8.5	8.5	9.5	8.5
WAVE HEIGHT (METERS)	--	--	0.03	--	--	--	--
CURRENT SPEED (FPS)	--	--	0.0	--	--	--	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	85.	85.	90.	90.	90.	90.	90.
SAMPLE DEPTH (METERS)	3.0	4.0	--	1.0	3.0	5.0	7.0
SECCHI DISK TRANSPARENCY (METERS)	--	--	1.1	--	--	--	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	--	2.7	--	--	--	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.5	18.5	--	18.5	18.5	19.5	19.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	117.	113.	--	149.	149.	148.	149.
OXIDATION REDUCTION POTENTIAL (MV)	--	410	--	420	--	--	420
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.1	7.9	--	8.0	8.0	9.0	8.0
PH (STD UNITS)	--	7.70	--	7.90	--	--	7.90

TABLE C-6f

PARAMETER NAME (UNITS)	STATION 14 11/30/78	STATION 15 11/28/78	STATION 15 11/28/78	STATION 15 11/28/78	STATION 16 11/28/78	STATION 16 11/28/78	STATION 17 11/28/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	--	6.0	5.0	6.0	5.0	6.0	5.0
WAVE HEIGHT (METERS)	--	0.00	--	--	0.00	--	--
CURRENT SPEED (FPS)	--	0.0	--	--	0.7	--	0.7
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	—	50.	50.	50.	50.	50.	30.
SAMPLE DEPTH (METERS)	1.0	--	1.0	5.0	--	1.0	--
SECCHI DISK TRANSPARENCY (METERS)	--	1.0	--	--	2.2	--	3.0
DEPTH OF 1% SURFACE LIGHT (METERS)	--	2.4	--	--	5.0	--	> 5.
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	19.0	--	18.5	18.5	--	18.0	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	140.	--	145.	143.	--	141.	--
OXIDATION REDUCTION POTENTIAL (MV)	--	--	440	450	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.6	--	9.5	9.2	--	9.1	--
PH (STD UNITS)	7.30	--	7.90	7.80	--	7.30	--

TABLE C-6g

PARAMETER NAME (UNITS)	STATION 17 11/28/78	STATION 18 11/30/78	STATION 18 11/30/78	STATION A0 11/29/78	STATION A0 11/29/78	STATION B0 11/29/78	STATION B0 11/29/78
HYDROLOGICAL DATA							
TOTAL DEPTH (METERS)	5.0	2.0	2.0	3.0	3.0	3.0	3.0
WAVE HEIGHT (METERS)	--	--	--	0.00	--	0.00	--
CURRENT SPEED (FPS)	--	--	--	1.3	--	0.8	--
PHYSICAL DATA							
MISCELLANEOUS DATA							
X-SECTION LOC (%FROM R-BK LK UPST)	50.	5.	5.	90.	90.	5.	5.
SAMPLE DEPTH (METERS)	1.0	--	1.0	--	1.0	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	--	1.0	--	0.9	--	0.6	--
DEPTH OF 1% SURFACE LIGHT (METERS)	--	> 2.0	--	2.2	--	1.1	--
FIELD MEASUREMENTS							
WATER TEMPERATURE (DEG C)	18.0	--	19.0	--	19.0	--	18.0
SPECIFIC CONDUCTANCE, FLD (UMHO/CM 25C)	145.	--	122.	--	180.	--	193.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--	370	--	290
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	--	9.0	--	9.4	--	9.1
PH (STD UNITS)	7.20	--	7.60	--	7.00	--	6.60

TABLE C-6h

PARAMETER NAME (UNITS)	STATION FE 11/29/78	STATION FF 11/29/78
HYDROLOGICAL DATA		
TOTAL DEPTH (METERS)	3.0	3.0
WAVE HEIGHT (METERS)	0.02	--
CURRENT SPEED (FPS)	0.0	--
PHYSICAL DATA		
MISCELLANEOUS DATA		
X-SECTION LOC (%FROM R-BK LK UPST)	40.	40.
SAMPLE DEPTH (METERS)	--	1.0
SECCHI DISK TRANSPARENCY (METERS)	0.6	--
DEPTH OF 1% SURFACE LIGHT (METERS)	1.0	--
FIELD MEASUREMENTS		
WATER TEMPERATURE (DEG C)	--	18.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	--	129.
OXIDATION REDUCTION POTENTIAL (MV)	--	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	--	6.6
PH (STD UNITS)	--	7.00

APPENDIX D

WATER QUALITY SAMPLING RESULTS

LIST OF FIGURES

LIST OF TABLES

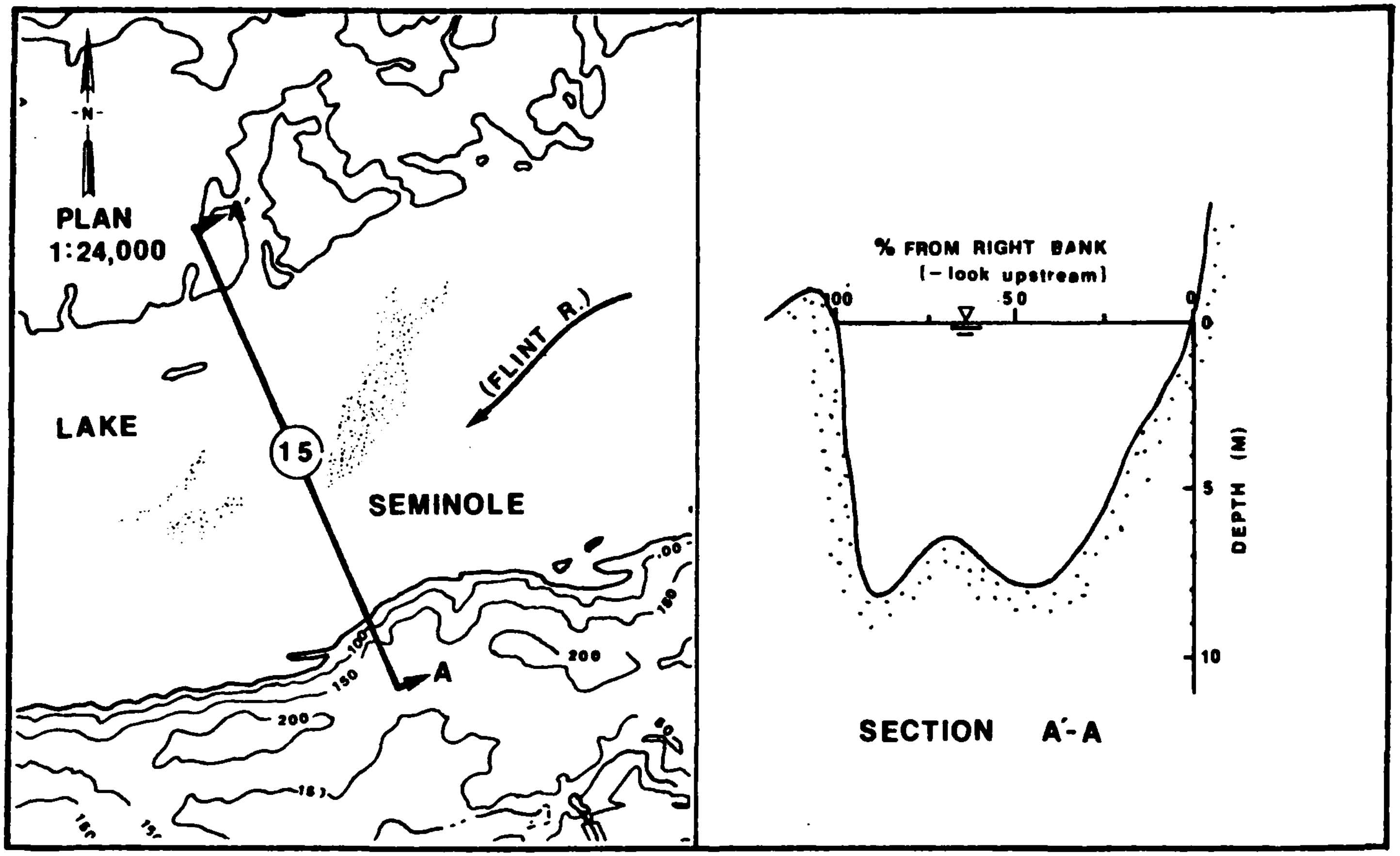

FIGURE D-1. TYPICAL PLAN AND CROSS SECTION OF A LAKE SEMINOLE SAMPLING STATION.

TABLE D-1a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

WATER QUALITY SAMPLING RESULTS

Grab Samples

PARAMETER NAME (UNITS)	STATION 01 4/17/78	STATION 02 4/18/78	STATION 03 4/18/78	STATION 04 4/18/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	19.0	19.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	51.	62.	51.	70.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.3	8.5	9.4	9.0
PH (STD UNITS)	7.70	7.25	7.20	7.10
LABORATORY DATA				
COLOR (PT-CO UNITS)	55.	50.	50.	50.
TURBIDITY, HACH TURBIDIMETER (FTU)	25.00	23.00	24.00	18.00
TOTAL FILTERABLE RESIDUE (MG/L)	46.	60.	62.	62.
TOTAL NONFILTERABLE RESIDUE (MG/L)	19.	< 10.	22.	35.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	14.	16.	16.	17.
SULFATE, DISSOLVED (MG SO4/L)	5.	4.	4.	5.
IRON, DISSOLVED (UG FE/L)	250	150	150	150
IRON, TOTAL (UG FE/L)	1710	1570	2190	1930
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	80	70	90	90
ZINC, TOTAL (UG ZN/L)	30	30	30	50
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	< 8.	< 7.	< 8.
CARBON, TOTAL ORGANIC (MG C/L)	6.	6.	6.	6.
CARBON DIOXIDE (MG CO2/L)	0.6	1.9	2.1	2.8
NITROGEN, TOTAL AMMONIA (MG N/L)	0.09	0.11	0.10	0.12
NITROGEN, NITRATE+NITRITE (MG N/L)	0.22	0.27	0.25	0.27
NITROGEN, TOTAL INORGANIC (MG N/L)	0.31	0.38	0.35	0.39
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	0.01	0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.03	0.03	0.05	0.07

TABLE D-1b

PARAMETER NAME (UNITS)	STATION 05 4/17/78	STATION 06 4/18/78	STATION 07 4/19/78	STATION 08 4/19/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFSCM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	20.0	19.0	18.0	21.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	69.	70.	63.	68.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	480	430
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.0	9.0	8.8	8.9
PH (STD UNITS)	7.40	7.10	7.00	7.10
LABORATORY DATA				
COLOR (PT-CO UNITS)	60.	60.	47.	50.
TURBIDITY, HACH TURBIDIMETER (FTU)	28.00	24.00	23.00	29.00
TOTAL FILTERABLE RESIDUE (MG/L)	55.	65.	52.	56.
TOTAL NONFILTERABLE RESIDUE (MG/L)	17.	12.	< 10.	20.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	15.	20.	15.	17.
SULFATE, DISSOLVED (MG SO4/L)	4.	6.	6.	6.
IRON, DISSOLVED (UG FE/L)	150	200	150	200
IRON, TOTAL (UG FE/L)	1990	1840	1950	2130
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	100	60	70	90
ZINC, TOTAL (UG ZN/L)	30	30	30	30
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 9.	< 7.	< 8.	< 7.
CARBON, TOTAL ORGANIC (MG C/L)	6.	5.	6.	6.
CARBON DIOXIDE (MG CO2/L)	1.2	3.4	3.2	2.8
NITROGEN, TOTAL AMMONIA (MG N/L)	0.07	0.12	0.10	0.10
NITROGEN, NITRATE+NITRITE (MG N/L)	0.32	0.29	0.27	0.27
NITROGEN, TOTAL INORGANIC (MG N/L)	0.39	0.41	0.37	0.37
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	0.01	0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.03	0.06	0.04	0.06

TABLE D-1c

PARAMETER NAME (UNITS)	STATION 09 4/19/78	STATION 10 4/20/78	STATION 11 4/20/78	STATION 12 4/20/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	90.	60.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	0.5
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	20.0	18.0	13.5	22.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	71.	54.	71.	99.
OXIDATION REDUCTION POTENTIAL (MV)	500	500	450	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.3	8.0	9.0	8.2
PH (STD UNITS)	7.10	6.70	7.10	7.80
LABORATORY DATA				
COLOR (PT-CO UNITS)	60.	55.	50.	14.
TURBIDITY, HACH TURBIDIMETER (FTU)	30.00	35.00	26.00	2.20
TOTAL FILTERABLE RESIDUE (MG/L)	60.	57.	59.	68.
TOTAL NONFILTERABLE RESIDUE (MG/L)	18.	17.	14.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	19.	16.	23.	42.
SULFATE, DISSOLVED (MG SO4/L)	5.	5.	5.	< 1.
IRON, DISSOLVED (UG FE/L)	200	150	200	50
IRON, TOTAL (UG FE/L)	1660	2090	1770	120
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	70	70	80	100
ZINC, TOTAL (UG ZN/L)	30	30	30	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	< 8.	< 7.	8.
CARBON, TOTAL ORGANIC (MG C/L)	7.	7.	7.	9.
CARBON DIOXIDE (MG CO2/L)	3.1	6.8	3.9	1.4
NITROGEN, TOTAL AMMONIA (MG N/L)	0.08	0.02	0.05	0.08
NITROGEN, NITRATE+NITRITE (MG N/L)	0.29	0.29	0.27	<0.01
NITROGEN, TOTAL INORGANIC (MG N/L)	0.37	0.30	0.33	<0.09
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.14	0.08	0.02

TABLE D-1d

PARAMETER NAME (UNITS)	STATION 13 4/20/78	STATION 14 4/20/78	STATION 15 4/21/78	STATION 16 4/21/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	30.	50.	50.	50.
SAMPLE DEPTH (METRES)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	21.0	20.5	21.0	20.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.	142.	90.	95.
OXIDATION REDUCTION POTENTIAL (MV)	490	--	460	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.2	7.6	7.1	7.4
PH (STD UNITS)	7.40	7.50	7.20	7.30
LABORATORY DATA				
COLOR (PT-CO UNITS)	50.	65.	60.	60.
TURBIDITY, HACH TURBIDIMETER (FTU)	13.00	16.00	13.00	11.00
TOTAL FILTERABLE RESIDUE (MG/L)	72.	112.	72.	65.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	< 10.	11.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	38.	69.	32.	34.
SULFATE, DISSOLVED (MG SO4/L)	1.	< 1.	1.	< 1.
IRON, DISSOLVED (UG FE/L)	350	250	400	400
IRON, TOTAL (UG FE/L)	1320	820	1390	1550
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	60	< 50	70	110
ZINC, TOTAL (UG ZN/L)	20	10	10	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	< 10.	< 8.	< 8.
CARBON, TOTAL ORGANIC (MG C/L)	5.	8.	6.	6.
CARBON DIOXIDE (MG CO2/L)	3.1	4.5	4.1	3.5
NITROGEN, TOTAL AMMONIA (MG N/L)	0.03	0.07	0.12	0.07
NITROGEN, NITRATE+NITRITE (MG N/L)	0.30	0.21	0.32	0.35
NITROGEN, TOTAL INORGANIC (MG N/L)	0.33	0.28	0.44	0.42
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	<0.01	0.03	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.09	0.03	0.08	0.09

TABLE D-1e

PARAMETER NAME (UNITS)	STATION 17 4/21/78	STATION 18 4/19/78	STATION 19 4/19/78
PHYSICAL DATA			
MISCELLANEOUS DATA			
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0
FIELD MEASUREMENTS			
WATER TEMPERATURE (DEG C)	20.0	21.5	21.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.	80.	105.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.7	8.7	9.8
PH (STD UNITS)	7.20	7.40	7.30
LABORATORY DATA			
COLOR (PT-CO UNITS)	60.	70.	60.
TURBIDITY, HACH TURBIDIMETER (FTU)	11.00	37.00	30.00
TOTAL FILTERABLE RESIDUE (MG/L)	69.	72.	75.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	15.	11.
CHEMICAL DATA			
MINERALS AND METALS			
ALKALINITY, TOTAL (MG CACO3/L)	34.	25.	32.
SULFATE, DISSOLVED (MG SO4/L)	1.	5.	4.
IRON, DISSOLVED (UG FE/L)	400	150	200
IRON, TOTAL (UG FE/L)	1390	2260	1730
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	80	90	80
ZINC, TOTAL (UG ZN/L)	40	20	30
NUTRIENTS			
CARBON, DISSOLVED ORGANIC (MG C/L)	8.	< 8.	< 7.
CARBON, TOTAL ORGANIC (MG C/L)	8.	7.	6.
CARBON DIOXIDE (MG CO2/L)	4.5	2.0	3.3
NITROGEN, TOTAL AMMONIA (MG N/L)	0.10	0.12	0.13
NITROGEN, NITRATE+NITRITE (MG N/L)	0.35	0.27	0.32
NITROGEN, TOTAL INORGANIC (MG N/L)	0.45	0.39	0.45
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	0.02	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.07	0.09

TABLE D-2a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-73-C-0101) PHASE I, CYCLE 2

WATER QUALITY SAMPLING RESULTS

Grab Samples

PARAMETER NAME (UNITS)	STATION 01 6/ 7/78	STATION 02 6/ 7/78	STATION 03 6/ 7/78	STATION 04 6/ 7/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	24.0	23.0	24.0	24.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	60.	60.	60.	61.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.3	8.0	7.3	7.6
PH (STD UNITS)	7.50	7.00	6.90	7.20
LABORATORY DATA				
COLOR (PT-CO UNITS)	90.	95.	120.	100.
TURBIDITY, HACH TURBIDIMETER (FTU)	50.00	40.00	75.00	60.00
TOTAL FILTERABLE RESIDUE (MG/L)	58.	62.	59.	70.
TOTAL NONFILTERABLE RESIDUE (MG/L)	17.	29.	103.	50.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	13.	15.	14.	18.
SULFATE, DISSOLVED (MG SO4/L)	5.	4.	4.	6.
SULFIDE, TOTAL (MG S/L)	--	< 0.1	--	< 0.1
IRON, DISSOLVED (UG FE/L)	230	210	170	160
IRON, TOTAL (UG FE/L)	2130	2440	3050	3930
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	60
MANGANESE, TOTAL (UG MN/L)	90	90	110	130
ZINC, TOTAL (UG ZN/L)	30	30	50	30
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 10.	< 12.	< 10.	9.
CARBON, TOTAL ORGANIC (MG C/L)	8.	8.	9.	11.
CARBON DIOXIDE (MG CO2/L)	0.8	3.0	3.3	2.2
NITROGEN, TOTAL AMMONIA (MG N/L)	0.09	0.11	0.10	0.08
NITROGEN, NITRATE+NITRITE (MG N/L)	0.36	0.42	0.35	0.36
NITROGEN, TOTAL INORGANIC (MG N/L)	0.45	0.53	0.46	0.44
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	0.02	0.02	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.15	0.14	0.25	0.22

TABLE D-2b

PARAMETER NAME (UNITS)	STATION 05 6/ 7/78	STATION 06 6/ 7/78	STATION 07 6/ 6/78	STATION 09 6/ 6/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	24.0	24.0	25.0	25.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	70.	65.	69.	71.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	470	490
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.8	6.9	7.5	7.1
PH (STD UNITS)	6.90	6.90	7.00	7.00
LABORATORY DATA				
COLOR (PT-CO UNITS)	150.	120.	100.	110.
TURBIDITY, HACH TURBIDIMETER (FTU)	120.00	160.00	90.00	90.00
TOTAL FILTERABLE RESIDUE (MG/L)	118.	104.	79.	91.
TOTAL NONFILTERABLE RESIDUE (MG/L)	63.	119.	25.	26.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	17.	16.	17.	18.
SULFATE, DISSOLVED (MG SO4/L)	5.	4.	4.	3.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	130	150	150	130
IRON, TOTAL (UG FE/L)	4990	5010	4280	4150
MANGANESE, DISSOLVED (UG MN/L)	60	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	140	150	70	80
ZINC, TOTAL (UG ZN/L)	30	40	70	50
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	10.	10.	10.	9.
CARBON, TOTAL ORGANIC (MG C/L)	12.	11.	11.	11.
CARBON DIOXIDE (MG CO2/L)	4.1	3.8	3.3	3.5
NITROGEN, TOTAL AMMONIA (MG N/L)	0.08	0.10	0.11	0.08
NITROGEN, NITRATE+NITRITE (MG N/L)	0.34	0.38	0.34	0.33
NITROGEN, TOTAL INORGANIC (MG N/L)	0.42	0.48	0.45	0.41
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	0.02	0.03	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.28	0.34	0.04	0.09

TABLE D-2c

PARAMETER NAME (UNITS)	STATION 09 6/ 6/78	STATION 10 6/ 6/78	STATION 11 6/ 6/78	STATION 12 6/ 7/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM P-BK LK UPST)	50.	50.	80.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	0.6
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	26.0	26.0	26.0	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	87.	85.	128.	100.
OXIDATION REDUCTION POTENTIAL (MV)	440	430	400	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.5	7.2	7.1	9.2
PH (STD UNITS)	7.30	7.50	7.60	8.70
LABORATORY DATA				
COLOR (PT-CO UNITS)	65.	65.	35.	15.
TURBIDITY, HACH TURBIDIMETER (FTU)	30.00	24.00	6.50	4.20
TOTAL FILTERABLE RESIDUE (MG/L)	75.	86.	88.	49.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	12.	< 10.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	25.	22.	50.	34.
SULFATE, DISSOLVED (MG SO4/L)	6.	6.	2.	< 1.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	330	250	190	50
IRON, TOTAL (UG FE/L)	1410	1430	620	140
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	80	90	< 50	150
ZINC, TOTAL (UG ZN/L)	50	50	10	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 10.	8.	7.	< 12.
CARBON, TOTAL ORGANIC (MG C/L)	9.	10.	8.	9.
CARBON DIOXIDE (MG CO2/L)	2.4	1.3	2.4	0.1
NITROGEN, TOTAL AMMONIA (MG N/L)	0.04	0.05	0.05	0.03
NITROGEN, NITRATE+NITRITE (MG N/L)	0.34	0.27	0.36	<0.01
NITROGEN, TOTAL INORGANIC (MG N/L)	0.38	0.32	0.42	<0.04
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.09	0.10	0.09	0.02

TABLE D-2d

PARAMETER NAME (UNITS)	STATION 13 6/ 5/78	STATION 14 6/ 5/78	STATION 15 6/ 5/78	STATION 16 6/ 5/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM F-BK LK UPST)	30.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.0	26.0	27.0	26.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	147.	195.	135.	130.
OXIDATION REDUCTION POTENTIAL (MV)	340	--	410	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.0	8.6	8.4	7.0
PH (STD UNITS)	8.00	7.90	7.80	7.30
LABORATORY DATA				
COLOR (PT-CO UNITS)	31.	16.	36.	44.
TURBIDITY, HACH TURBIDIMETER (FTU)	4.30	3.00	6.90	8.00
TOTAL FILTERABLE RESIDUE (MG/L)	94.	121.	95.	91.
TOTAL NONFILTERABLE RESIDUE (MG/L)	14.	12.	12.	12.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	61.	93.	55.	54.
SULFATE, DISSOLVED (MG SO4/L)	1.	< 1.	2.	2.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	90	90	150	260
IRON, TOTAL (UG FE/L)	350	160	740	950
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	< 50	50	< 50
ZINC, TOTAL (UG ZN/L)	20	10	30	50
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	7.	< 9.	6.	6.
CARBON, TOTAL ORGANIC (MG C/L)	8.	8.	7.	6.
CARBON DIOXIDE (MG CO2/L)	1.1	2.3	1.7	5.2
NITROGEN, TOTAL AMMONIA (MG N/L)	0.05	0.03	0.03	0.11
NITROGEN, NITRATE+NITRITE (MG N/L)	0.26	0.42	0.45	0.64
NITROGEN, TOTAL INORGANIC (MG N/L)	0.31	0.45	0.48	0.75
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	0.01	<0.01	0.05
PHOSPHORUS, TOTAL (MG P/L)	0.07	0.04	0.10	0.13

TABLE D-2e

PARAMETER NAME (UNITS)	STATION 17 6/ 5/78	STATION 18 6/ 6/78	STATION 19 6/ 6/78
PHYSICAL DATA			
MISCELLANEOUS DATA			
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0
FIELD MEASUREMENTS			
WATER TEMPERATURE (DEG C)	25.0	26.0	26.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	115.	130.	121.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.9	7.3	5.1
PH (STD UNITS)	7.30	7.50	7.40
LABORATORY DATA			
COLOR (PT-CO UNITS)	50.	35.	55.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.90	21.00	17.00
TOTAL FILTERABLE RESIDUE (MG/L)	93.	83.	93.
TOTAL NONFILTERABLE RESIDUE (MG/L)	17.	14.	< 10.
CHEMICAL DATA			
MINERALS AND METALS			
ALKALINITY, TOTAL (MG CACO3/L)	49.	42.	45.
SULFATE, DISSOLVED (MG SO4/L)	2.	5.	4.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	410	140	140
IRON, TOTAL (UG FE/L)	1090	1200	1310
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	90	120
ZINC, TOTAL (UG ZN/L)	40	40	40
NUTRIENTS			
CARBON, DISSOLVED ORGANIC (MG C/L)	< 6.	5.	6.
CARBON, TOTAL ORGANIC (MG C/L)	6.	6.	8.
CARBON DIOXIDE (MG CO2/L)	4.7	2.5	3.4
NITROGEN, TOTAL AMMONIA (MG N/L)	0.09	0.10	0.11
NITROGEN, NITRATE+NITRITE (MG N/L)	0.58	0.31	0.30
NITROGEN, TOTAL INORGANIC (MG N/L)	0.67	0.41	0.41
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.06	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.12	0.12	0.19

TABLE D-3a

[illegible] WATER QUALITY MANAGEMENT STUDY --
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

WATER QUALITY SAMPLING RESULTS

Grab Samples

PARAMETER NAME (UNITS)	STATION 01 7/10/78	STATION 02 7/10/78	STATION 03 7/10/78	STATION 04 7/10/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (BELOW [illegible] LK OUTLT)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	24.0	28.5	29.0	26.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	56.	67.	69.	75.
OXIDATION-REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.3	7.9	8.5	7.7
PH (STD UNITS)	7.35	7.50	7.50	7.70
LABORATORY DATA				
COLOR (PT-CO UNITS)	30.	30.	30.	40.
TURBIDITY, HACH TURBIDIMETER (FTU)	7.30	4.80	11.00	12.00
TOTAL FILTERABLE RESIDUE (MG/L)	54.	48.	45.	61.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	15.	27.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	17.	17.	17.	20.
SULFATE, DISSOLVED (MG SO4/L)	5.	5.	5.	7.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	60	< 50	60	50
IRON, TOTAL (UG FE/L)	690	670	880	990
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	120
MANGANESE, TOTAL (UG MN/L)	150	130	180	220
ZINC, TOTAL (UG ZN/L)	20	50	30	70
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	7.	5.	6.	5.
CARBON, TOTAL ORGANIC (MG C/L)	7.	6.	6.	6.
CARBON DIOXIDE (MG CO2/L)	1.4	0.8	0.9	0.7
NITROGEN, TOTAL AMMONIA (MG N/L)	0.05	0.06	0.05	0.06
NITROGEN, NITRATE+NITRITE (MG N/L)	0.13	0.11	0.10	0.08
NITROGEN, TOTAL INORGANIC (MG N/L)	0.19	0.17	0.15	0.14
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.11	0.06	0.17

TABLE D-3b

PARAMETER NAME (UNITS)	STATION 0[illegible] 7/1[illegible]/79	STATION 0[illegible] 7/20/79	STATION 07 7/20/79	STATION 07 7/20/79
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (METERS --RK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.5	28.0	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	70.	77.	33.	57.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	410	400
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	6.0	7.2	5.3
PH (STD UNITS)	7.50	7.10	7.20	7.20
LABORATORY DATA				
COLOR (PT-CO UNITS)	42.	55.	39.	32.
TURBIDITY, HACH TURBIDIMETER (FTU)	22.00	17.00	5.50	7.40
TOTAL FILTERABLE RESIDUE (MG/L)	48.	65.	63.	60.
TOTAL NONFILTERABLE RESIDUE (MG/L)	27.	< 10.	< 10.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	19.	21.	23.	24.
SULFATE, DISSOLVED (MG SO4/L)	7.	6.	7.	7.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	60	70	60	60
IRON, TOTAL (UG FE/L)	1140	650	390	500
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	130	70	100	100
ZINC, TOTAL (UG ZN/L)	30	30	40	30
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	< 6.	< 6.	5.
CARBON, TOTAL ORGANIC (MG C/L)	6.	5.	5.	5.
CARBON DIOXIDE (MG CO2/L)	1.1	3.1	2.7	2.9
NITROGEN, TOTAL AMMONIA (MG N/L)	0.06	0.05	0.06	0.05
NITROGEN, NITRATE+NITRITE (MG N/L)	0.08	0.11	0.17	0.16
NITROGEN, TOTAL INORGANIC (MG N/L)	0.14	0.17	0.23	0.21
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.17	0.0[illegible]	0.24	0.09

TABLE D-3c

PARAMETER NAME (UNITS)	STATION 06 7/18/79	STATION 07 7/18/79	STATION 09 7/19/79	STATION 10 7/19/79
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (% FROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	4.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	29.5	31.0	29.0	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	94.	90.	92.	90.
OXIDATION REDUCTION POTENTIAL (MV)	350	410	--	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	8.7	5.0	8.6
PH (STD UNITS)	7.30	7.90	--	9.00
LABORATORY DATA				
COLOR (PT-CO UNITS)	50.	47.	50.	47.
TURBIDITY, HACH TURBIDIMETER (FTU)	7.40	6.40	7.70	7.60
TOTAL FILTERABLE RESIDUE (MG/L)	53.	58.	52.	54.
TOTAL NONFILTERABLE RESIDUE (MG/L)	11.	12.	21.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	25.	29.	25.	25.
SULFATE, DISSOLVED (MG SO4/L)	6.	7.	7.	6.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	90	100	100	90
IRON, TOTAL (UG FE/L)	630	350	900	630
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	120	120	180	100
ZINC, TOTAL (UG ZN/L)	60	20	10	80
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	6.	6.	6.	7.
CARBON, TOTAL ORGANIC (MG C/L)	6.	7.	7.	7.
CARBON DIOXIDE (MG CO2/L)	2.6	0.7	2.3	0.5
NITROGEN, TOTAL AMMONIA (MG N/L)	0.12	0.07	0.05	0.03
NITROGEN, NITRATE+NITRITE (MG N/L)	0.11	0.03	0.04	0.02
NITROGEN, TOTAL INORGANIC (MG N/L)	0.23	0.03	0.10	0.05
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.01	<0.01	<0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.10	0.08	0.15

TABLE D-3d

PARAMETER NAME (UNITS)	STATION 11 7/1[illegible]/78	STATION 11 7/1[illegible]/7[illegible]	STATION 12 7/1[illegible]/7[illegible]	STATION 13 7/1[illegible]/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (FEET FROM R-BK LK UPST)	40.	80.	50.	30.
SAMPLE DEPTH (METERS)	1.0	5.0	0.[illegible]	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	30.0	28.0	30.0	31.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	125.	102.	90.	150.
OXIDATION REDUCTION POTENTIAL (MV)	350	370	--	310
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.5	3.3	6.7	3.6
PH (STD UNITS)	9.30	7.50	7.90	8.40
LABORATORY DATA				
COLOR (PT-CO UNITS)	20.	60.	14.	17.
TURBIDITY, HACH TURBIDIMETER (FTU)	4.90	9.40	0.80	2.40
TOTAL FILTERABLE RESIDUE (MG/L)	68.	64.	55.	93.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	13.	13.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	49.	33.	32.	62.
SULFATE, DISSOLVED (MG SO4/L)	3.	5.	< 1.	2.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	60	70	< 50	< 50
IRON, TOTAL (UG FE/L)	540	670	80	200
MANGANESE, DISSOLVED (UG MN/L)	< 50	60	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	90	130	< 50	< 50
ZINC, TOTAL (UG ZN/L)	30	40	160	40
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	5.	4.	6.	6.
CARBON, TOTAL ORGANIC (MG C/L)	5.	5.	7.	6.
CARBON DIOXIDE (MG CO2/L)	0.5	1.9	0.9	0.2
NITROGEN, TOTAL AMMONIA (MG N/L)	0.04	0.04	0.04	0.07
NITROGEN, NITRATE+NITRITE (MG N/L)	0.08	0.0[illegible]	<0.01	0.13
NITROGEN, TOTAL INORGANIC (MG N/L)	0.12	0.13	<0.05	0.20
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.22	0.14	0.05	0.50

TABLE D-3e

PARAMETER NAME (UNITS)	STATION 13 7/17/78	STATION 14 7/17/78	STATION 15 7/17/78	STATION 16 7/17/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	20.	50.	50.	50.
SAMPLE DEPTH (METERS)	8.0	1.0	1.0	7.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	29.0	28.0	31.0	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	[illegible]	200.	153.	[illegible]
OXIDATION REDUCTION POTENTIAL (MV)	340	--	300	382
DISSOLVED OXYGEN, ELECTRODE (MG/L)	3.9	9.0	9.0	3.6
PH (STD UNITS)	8.00	7.90	9.60	7.90
LABORATORY DATA				
COLOR (PT-CO UNITS)	21.	14.	20.	17.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.30	2.40	3.00	5.50
TOTAL FILTERABLE RESIDUE (MG/L)	81.	100.	99.	102.
TOTAL NONFILTERABLE RESIDUE (MG/L)	14.	< 10.	< 10.	10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	62.	91.	63.	63.
SULFATE, DISSOLVED (MG SO4/L)	2.	< 1.	2.	3.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	< 50	< 30	< 50	< 50
IRON, TOTAL (UG FE/L)	780	130	80	420
MANGANESE, DISSOLVED (UG MN/L)	90	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	210	< 50	170	120
ZINC, TOTAL (UG ZN/L)	20	20	20	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	5.	4.	4.
CARBON, TOTAL ORGANIC (MG C/L)	4.	6.	7.	4.
CARBON DIOXIDE (MG CO2/L)	1.2	2.1	0.3	1.5
NITROGEN, TOTAL AMMONIA (MG N/L)	0.16	0.36	0.07	0.05
NITROGEN, NITRATE+NITRITE (MG N/L)	0.25	0.54	0.24	0.34
NITROGEN, TOTAL INORGANIC (MG N/L)	0.41	0.90	0.31	0.39
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.26	0.37	0.47	0.45

TABLE D-3f

PARAMETER NAME (UNITS)	STATION 1[illegible] 7/17/78	STATION 17 7/17/78	STATION 18 7/1[illegible]/78	STATION 1[illegible] 7/18/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	27.0	27.0	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	142.	135.	120.	120.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	7.2	6.3	5.6
PH (STD UNITS)	7.70	7.60	7.60	7.30
LABORATORY DATA				
COLOR (PT-CO UNITS)	21.	24.	37.	32.
TURBIDITY, HACH TURBIDIMETER (FTU)	3.60	4.90	7.60	9.60
TOTAL FILTERABLE RESIDUE (MG/L)	64.	88.	71.	94.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	10.	13.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	57.	56.	43.	37.
SULFATE, DISSOLVED (MG SO4/L)	1.	2.	7.	7.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	60	70	< 50	< 50
IRON, TOTAL (UG FE/L)	450	510	680	860
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	< 50	160	170
ZINC, TOTAL (UG ZN/L)	30	30	10	30
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	4.	5.	4.
CARBON, TOTAL ORGANIC (MG C/L)	4.	5.	6.	5.
CARBON DIOXIDE (MG CO2/L)	2.2	2.7	2.0	3.6
NITROGEN, TOTAL AMMONIA (MG N/L)	0.05	0.05	0.09	0.10
NITROGEN, NITRATE+NITRITE (MG N/L)	0.57	0.52	0.12	0.14
NITROGEN, TOTAL INORGANIC (MG N/L)	0.62	0.57	0.21	0.24
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.03	0.04	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	<0.01	0.12	0.07	0.21

TABLE D-4a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

WATER QUALITY SAMPLING RESULTS

Grab Samples

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 02 8/17/78	STATION 03 8/17/78	STATION 04 8/17/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-DK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.0	28.0	28.0	28.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.	75.	75.	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	7.5	7.8	7.1
PH (STD UNITS)	6.90	7.10	7.10	7.10
LABORATORY DATA				
COLOR (PT-CO UNITS)	47.	55.	50.	55.
TURBIDITY, HACH TURBIDIMETER (FTU)	6.50	5.50	5.50	5.60
TOTAL FILTERABLE RESIDUE (MG/L)	59.	46.	42.	55.
TOTAL NONFILTERABLE RESIDUE (MG/L)	14.	18.	14.	22.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	18.	17.	17.	20.
CHLORIDE (MG CL/L)	4.	4.	4.	4.
SULFATE, DISSOLVED (MG SO4/L)	5.	6.	5.	8.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	4.1	6.0	5.1	6.0
HARDNESS, TOTAL (MG CACO3/L)	21.9	27.3	23.6	30.9
IRON, DISSOLVED (UG FE/L)	90	90	< 50	50
IRON, TOTAL (UG FE/L)	780	950	860	970
MAGNESIUM, TOTAL (MG MG/L)	2.8	3.0	2.6	3.9
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	130	140	120	150
POTASSIUM, TOTAL (MG K/L)	1.6	1.6	1.6	1.6
SODIUM, TOTAL (MG NA/L)	4.37	4.27	4.37	5.93
ZINC, TOTAL (UG ZN/L)	30	20	70	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	5.	< 8.	7.
CARBON, TOTAL ORGANIC (MG C/L)	5.	5.	5.	7.
CARBON DIOXIDE (MG CO2/L)	4.2	2.5	2.5	2.9
NITROGEN, TOTAL AMMONIA (MG N/L)	0.09	0.10	0.11	0.09
NITROGEN, NITRATE+NITRITE (MG N/L)	0.11	0.14	0.12	0.11
NITROGEN, TOTAL INORGANIC (MG N/L)	0.20	0.24	0.23	0.20
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.5	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	0.4	0.4	0.4
NITROGEN, TOTAL (MG N/L)	0.6	0.6	0.6	0.6
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.05	0.05	0.05

TABLE D-4b

PARAMETER NAME (UNITS)	STATION 05 8/17/78	STATION 06 8/17/78	STATION 07 8/16/78	STATION 07 8/16/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM P-BK LK UPST)	50.	50.	20.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	7.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	29.0	29.0	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	80.	65.	90.	90.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	380	380
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.0	6.9	7.0	6.7
PH (STD UNITS)	7.10	7.20	7.20	7.00
LABORATORY DATA				
COLOR (PT-CO UNITS)	55.	50.	55.	50.
TURBIDITY, HACH TURBIDIMETER (FTU)	9.30	5.40	13.00	16.00
TOTAL FILTERABLE RESIDUE (MG/L)	49.	52.	70.	75.
TOTAL NONFILTERABLE RESIDUE (MG/L)	19.	17.	16.	--
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	20.	21.	21.	22.
CHLORIDE (MG CL/L)	4.	4.	4.	4.
SULFATE, DISSOLVED (MG SO4/L)	7.	6.	6.	6.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	4.3	4.3	7.4	7.9
HARDNESS, TOTAL (MG CACO3/L)	27.8	14.7	28.6	30.3
IRON, DISSOLVED (UG FE/L)	< 50	< 50	140	120
IRON, TOTAL (UG FE/L)	1110	1000	930	2120
MAGNESIUM, TOTAL (MG MG/L)	4.1	1.0	2.5	2.6
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	160	130	80	90
POTASSIUM, TOTAL (MG K/L)	1.6	1.7	1.6	1.4
SODIUM, TOTAL (MG NA/L)	5.23	5.07	5.07	5.20
ZINC, TOTAL (UG ZN/L)	10	10	10	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 6.	5.	< 7.	< 7.
CARBON, TOTAL ORGANIC (MG C/L)	5.	6.	6.	6.
CARBON DIOXIDE (MG CO2/L)	2.9	2.5	2.5	2.4
NITROGEN, TOTAL AMMONIA (MG N/L)	0.06	0.05	0.05	0.04
NITROGEN, NITRATE+NITRITE (MG N/L)	0.11	0.30	0.18	0.16
NITROGEN, TOTAL INORGANIC (MG N/L)	0.17	0.35	0.23	0.20
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.6	0.5	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	0.6	0.5	0.5
NITROGEN, TOTAL (MG N/L)	0.6	0.9	0.7	0.7
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.03	<0.01	0.02	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.06	0.05	0.05

TABLE D-4c

PARAMETER NAME (UNITS)	STATION 09 8/16/78	STATION 09 8/16/78	STATION 09 8/16/78	STATION 10 8/15/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	6.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.5	29.0	--	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	85.	85.	--	77.
OXIDATION REDUCTION POTENTIAL (MV)	440	410	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.6	7.8	--	8.8
PH (STD UNITS)	7.60	8.00	--	7.90
LABORATORY DATA				
COLOR (PT-CO UNITS)	60.	55.	55.	48.
TURBIDITY, HACH TURBIDIMETER (FTU)	16.00	13.00	14.00	15.00
TOTAL FILTERABLE RESIDUE (MG/L)	63.	60.	65.	57.
TOTAL NONFILTERABLE RESIDUE (MG/L)	17.	13.	13.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	22.	21.	21.	19.
CHLORIDE (MG CL/L)	4.	4.	4.	4.
SULFATE, DISSOLVED (MG SO4/L)	5.	6.	5.	5.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	4.4	7.3	6.6	5.2
HARDNESS, TOTAL (MG CACO3/L)	22.9	29.2	19.0	26.0
IRON, DISSOLVED (UG FE/L)	170	140	180	80
IRON, TOTAL (UG FE/L)	700	1200	1210	770
MAGNESIUM, TOTAL (MG MG/L)	2.9	2.7	2.7	3.2
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	120	70	90	80
POTASSIUM, TOTAL (MG K/L)	1.4	1.4	1.4	1.6
SODIUM, TOTAL (MG NA/L)	5.20	4.27	3.97	4.33
ZINC, TOTAL (UG ZN/L)	10	20	< 10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	4.	5.	< 7.
CARBON, TOTAL ORGANIC (MG C/L)	6.	5.	6.	6.
CARBON DIOXIDE (MG CO2/L)	1.0	0.4	3.0	0.4
NITROGEN, TOTAL AMMONIA (MG N/L)	0.07	<0.01	0.02	0.03
NITROGEN, NITRATE+NITRITE (MG N/L)	0.18	0.10	0.14	0.03
NITROGEN, TOTAL INORGANIC (MG N/L)	0.25	<0.11	0.16	0.06
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.5	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	> 0.5	0.5	0.5
NITROGEN, TOTAL (MG N/L)	0.7	0.6	0.6	0.5
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	0.03	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.09	0.08	0.06

TABLE D-4d

PARAMETER NAME (UNITS)	STATION 11 8/16/78	STATION 11 8/16/78	STATION 12 8/15/78	STATION 13 8/14/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	20.	40.	20.	30.
SAMPLE DEPTH (METERS)	1.0	5.0	0.6	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	30.0	28.0	--	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	140.	130.	--	130.
OXIDATION REDUCTION POTENTIAL (MV)	330	360	--	330
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.8	6.8	--	10.4
PH (STD UNITS)	9.10	7.80	--	9.00
LABORATORY DATA				
COLOR (PT-CO UNITS)	30.	55.	17.	21.
TURBIDITY, HACH TURBIDIMETER (FTU)	6.50	17.00	0.75	6.30
TOTAL FILTERABLE RESIDUE (MG/L)	62.	60.	58.	78.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	< 10.	< 10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	29.	20.	32.	45.
CHLORIDE (MG CL/L)	4.	4.	3.	4.
SULFATE, DISSOLVED (MG SO4/L)	5.	5.	< 1.	2.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	5.2	5.0	9.6	10.9
HARDNESS, TOTAL (MG CACO3/L)	22.9	23.4	24.6	41.4
IRON, DISSOLVED (UG FE/L)	70	120	< 50	< 50
IRON, TOTAL (UG FE/L)	420	1220	90	220
MAGNESIUM, TOTAL (MG MG/L)	2.4	2.7	0.2	3.5
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	180	< 50	< 50
POTASSIUM, TOTAL (MG K/L)	1.3	1.6	< 0.1	0.9
SODIUM, TOTAL (MG NA/L)	4.00	4.47	1.15	3.13
ZINC, TOTAL (UG ZN/L)	10	10	< 10	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	6.	6.	< 2.	< 8.
CARBON, TOTAL ORGANIC (MG C/L)	7.	7.	7.	7.
CARBON DIOXIDE (MG CO2/L)	< 0.1	0.6	0.3	< 0.1
NITROGEN, TOTAL AMMONIA (MG N/L)	<0.01	<0.01	0.01	<0.01
NITROGEN, NITRATE+NITRITE (MG N/L)	0.09	0.12	<0.01	0.14
NITROGEN, TOTAL INORGANIC (MG N/L)	1.10	<0.13	<0.02	0.14
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.3	0.4	0.6
NITROGEN, TOTAL ORGANIC (MG N/L)	> 0.5	> 0.3	0.4	> 0.6
NITROGEN, TOTAL (MG N/L)	0.6	0.4	< 0.4	0.7
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	0.01	<0.01	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.08	0.06	0.03	0.05

TABLE D-4e

PARAMETER NAME (UNITS)	STATION 13 8/14/79	STATION 14 8/15/79	STATION 15 8/14/79	STATION 15 8/14/79
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	30.	50.	15.	50.
SAMPLE DEPTH (METERS)	4.0	1.0	1.0	7.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.0	27.5	30.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	130.	127.	130.	130.
OXIDATION REDUCTION POTENTIAL (MV)	340	—	320	380
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	5.8	10.8	6.4
PH (STD UNITS)	8.20	7.00	9.00	7.40
LABORATORY DATA				
COLOR (PT-CO UNITS)	21.	90.	36.	36.
TURBIDITY, HACH TURBIDIMETER (FTU)	3.50	17.00	16.00	11.00
TOTAL FILTERABLE RESIDUE (MG/L)	76.	94.	71.	74.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	< 10.	14.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	46.	48.	40.	42.
CHLORIDE (MG CL/L)	4.	4.	4.	4.
SULFATE, DISSOLVED (MG SO4/L)	1.	3.	< 1.	2.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	11.6	13.7	10.8	10.4
HARDNESS, TOTAL (MG CACO3/L)	43.5	39.4	57.8	56.1
IRON, DISSOLVED (UG FE/L)	< 50	200	90	120
IRON, TOTAL (UG FE/L)	400	730	480	1090
MAGNESIUM, TOTAL (MG MG/L)	3.6	1.2	7.5	7.3
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	< 50	60	90
POTASSIUM, TOTAL (MG K/L)	0.9	0.6	1.1	1.1
SODIUM, TOTAL (MG NA/L)	3.07	1.45	3.27	3.27
ZINC, TOTAL (UG ZN/L)	30	< 10	10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	< 5.	6.	7.
CARBON, TOTAL ORGANIC (MG C/L)	6.	3.	7.	7.
CARBON DIOXIDE (MG CO2/L)	0.5	9.1	< 0.1	3.1
NITROGEN, TOTAL AMMONIA (MG N/L)	0.03	0.03	<0.01	0.04
NITROGEN, NITRATE+NITRITE (MG N/L)	0.23	0.07	0.37	0.42
NITROGEN, TOTAL INORGANIC (MG N/L)	0.26	0.10	<0.38	0.46
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.7	0.4
NITROGEN, TOTAL ORGANIC (MG N/L)	0.5	0.5	> 0.7	0.4
NITROGEN, TOTAL (MG N/L)	0.7	0.6	1.1	0.9
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.02	0.03
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.04	0.07	0.07

TABLE D-4f

PARAMETER NAME (UNITS)	STATION 16 8/14/79	STATION 17 8/14/79	STATION 18 8/16/79	STATION 19 8/16/79
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.0	28.0	29.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	90.	105.	115.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	6.8	6.4	8.0	7.5
PH (STD UNITS)	7.40	6.90	7.50	7.10
LABORATORY DATA				
COLOR (PT-CO UNITS)	60.	60.	32.	30.
TURBIDITY, HACH TURBIDIMETER (FTU)	12.00	11.00	10.00	8.60
TOTAL FILTERABLE RESIDUE (MG/L)	63.	68.	68.	57.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	27.	< 10.	10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	25.	25.	33.	38.
CHLORIDE (MG CL/L)	4.	4.	4.	4.
SULFATE, DISSOLVED (MG SO4/L)	3.	2.	5.	4.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	6.4	6.2	13.0	15.3
HARDNESS, TOTAL (MG CACO3/L)	22.4	22.1	42.8	49.8
IRON, DISSOLVED (UG FE/L)	< 50	420	70	< 50
IRON, TOTAL (UG FE/L)	1250	2040	760	650
MAGNESIUM, TOTAL (MG MG/L)	1.6	1.6	2.5	2.8
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	90	260	90	100
POTASSIUM, TOTAL (MG K/L)	1.1	1.2	1.1	1.1
SODIUM, TOTAL (MG NA/L)	3.30	3.30	3.87	3.59
ZINC, TOTAL (UG ZN/L)	20	30	10	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	8.	8.	6.	5.
CARBON, TOTAL ORGANIC (MG C/L)	8.	8.	6.	5.
CARBON DIOXIDE (MG CO2/L)	1.9	5.8	1.9	5.6
NITROGEN, TOTAL AMMONIA (MG N/L)	0.03	0.02	0.05	0.08
NITROGEN, NITRATE+NITRITE (MG N/L)	0.29	0.28	0.04	0.17
NITROGEN, TOTAL INORGANIC (MG N/L)	0.32	0.30	0.09	0.25
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.6	0.6
NITROGEN, TOTAL ORGANIC (MG N/L)	0.5	0.5	0.6	0.5
NITROGEN, TOTAL (MG N/L)	0.8	0.8	0.6	0.9
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.03	0.03	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.09	0.04	0.04

TABLE D-5a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0131) PHASE I, CYCLE [illegible]

WATER QUALITY SAMPLING RESULTS

Grab Samples

PARAMETER NAME (UNITS)	STATION 01 9/27/78	STATION 02 9/27/78	STATION 03 9/27/78	STATION 04 9/27/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (REF-LM F-BK LK UPST)	50.	50.	30.	30.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	27.5	27.5	27.0	28.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	80.	80.	80.	85.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.0	8.1	8.1	7.4
PH (STD UNITS)	7.20	7.50	7.50	7.50
LABORATORY DATA				
COLOR (PT-CO UNITS)	9.	0.	3.	23.
TURBIDITY, HACH TURBIDIMETER (FTU)	4.10	5.10	6.60	8.60
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	20.	19.
TOTAL FILTERABLE RESIDUE (MG/L)	49.	49.	46.	57.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	19.	19.	20.	25.
SULFATE, DISSOLVED (MG SO4/L)	7.	7.	6.	9.
IRON, DISSOLVED (UG FE/L)	< 50	< 50	< 50	< 50
IRON, TOTAL (UG FE/L)	180	230	440	470
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	90	120	180	180
ZINC, TOTAL (UG ZN/L)	30	10	50	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	7.	5.	7.
CARBON, TOTAL ORGANIC (MG C/L)	9.	10.	12.	17.
CARBON DIOXIDE (MG CO2/L)	2.2	1.1	1.2	1.4
NITROGEN, TOTAL AMMONIA (MG N/L)	<0.01	<0.01	<0.01	0.02
NITROGEN, NITRATE+NITRITE (MG N/L)	0.08	0.07	0.07	0.07
NITROGEN, TOTAL INORGANIC (MG N/L)	<0.09	<0.08	<0.08	0.09
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.6	0.5	0.7
NITROGEN, TOTAL ORGANIC (MG N/L)	> 0.4	> 0.5	> 0.5	0.7
NITROGEN, TOTAL (MG N/L)	0.5	0.7	0.5	0.8
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.03	0.03	0.06	0.04

TABLE D-5b

PARAMETER NAME (UNITS)	STATION 05 9/27/78	STATION 06 9/27/78	STATION 07 9/27/78	STATION 07 9/27/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM A-PK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	7.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	25.0	27.0	27.5	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.	100.	90.	95.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	390	340
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	7.2	7.2	7.4
PH (STD UNITS)	7.50	7.50	7.20	7.20
LABORATORY DATA				
COLOR (PT-CO UNITS)	12.	24.	21.	24.
TURBIDITY, HACH TURBIDIMETER (FTU)	7.90	7.30	5.50	7.80
TOTAL NONFILTERABLE RESIDUE (MG/L)	18.	12.	11.	16.
TOTAL FILTERABLE RESIDUE (MG/L)	50.	58.	55.	55.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	22.	26.	25.	23.
SULFATE, DISSOLVED (MG SO4/L)	8.	8.	9.	8.
IRON, DISSOLVED (UG FE/L)	< 50	< 50	< 50	< 50
IRON, TOTAL (UG FE/L)	410	400	290	370
MANGANESE, DISSOLVED (UG MN/L)	90	< 50	80	80
MANGANESE, TOTAL (UG MN/L)	130	160	140	150
ZINC, TOTAL (UG ZN/L)	30	20	10	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	7.	8.	8.	9.
CARBON, TOTAL ORGANIC (MG C/L)	13.	19.	16.	19.
CARBON DIOXIDE (MG CO2/L)	1.3	1.5	2.9	2.7
NITROGEN, TOTAL AMMONIA (MG N/L)	0.01	0.05	0.02	0.02
NITROGEN, NITRATE+NITRITE (MG N/L)	0.07	0.14	0.16	0.12
NITROGEN, TOTAL INORGANIC (MG N/L)	0.08	0.19	0.18	0.14
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.6	0.4	0.5	0.6
NITROGEN, TOTAL ORGANIC (MG N/L)	0.5	0.4	0.4	0.6
NITROGEN, TOTAL (MG N/L)	0.7	0.6	0.7	0.7
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.04	0.04	0.06

TABLE D-5c

PARAMETER NAME (UNITS)	STATION 08 9/26/78	STATION 09 9/26/78	STATION 09 9/26/78	STATION 10 9/26/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM F-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	5.0	0.5
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.7	29.5	29.0	29.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	100.	95.	95.	90.
OXIDATION REDUCTION POTENTIAL (MV)	460	410	410	420
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.2	7.8	7.4	7.7
PH (STD UNITS)	7.20	7.50	7.30	7.70
LABORATORY DATA				
COLOR (PT-CO UNITS)	25.	33.	32.	34.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.20	9.50	9.00	9.60
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	13.	13.	13.
TOTAL FILTERABLE RESIDUE (MG/L)	63.	59.	63.	55.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	29.	22.	25.	24.
SULFATE, DISSOLVED (MG SO4/L)	7.	7.	7.	7.
IRON, DISSOLVED (UG FE/L)	< 50	170	< 50	< 50
IRON, TOTAL (UG FE/L)	< 50	380	370	250
MANGANESE, DISSOLVED (UG MN/L)	< 50	100	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	170	160	130
ZINC, TOTAL (UG ZN/L)	< 10	< 10	< 10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	5.	5.	5.	5.
CARBON, TOTAL ORGANIC (MG C/L)	5.	6.	5.	6.
CARBON DIOXIDE (MG CO2/L)	3.3	1.2	2.3	0.9
NITROGEN, TOTAL AMMONIA (MG N/L)	<0.01	<0.01	<0.01	<0.01
NITROGEN, NITRATE+NITRITE (MG N/L)	0.12	0.03	0.09	0.04
NITROGEN, TOTAL INORGANIC (MG N/L)	<0.13	<0.04	<0.10	<0.05
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.5	1.0
NITROGEN, TOTAL ORGANIC (MG N/L)	> 0.5	> 0.5	> 0.5	> 1.0
NITROGEN, TOTAL (MG N/L)	0.6	0.5	0.6	1.0
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	--	0.02	0.02	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.03	0.04	0.04	0.03

TABLE D-5d

PARAMETER NAME (UNITS)	STATION 11 9/26/78	STATION 11 9/26/78	STATION 12 9/26/78	STATION 13 9/25/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	40.	60.	50.	30.
SAMPLE DEPTH (METERS)	1.0	4.0	0.3	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.5	28.5	30.0	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	135.	133.	95.	145.
OXIDATION REDUCTION POTENTIAL (MV)	410	420	—	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.6	7.3	9.6	9.4
PH (STD UNITS)	8.10	7.60	8.40	9.00
LABORATORY DATA				
COLOR (PT-CO UNITS)	23.	23.	12.	20.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.00	8.50	3.20	4.50
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	11.	< 10.	227.
TOTAL FILTERABLE RESIDUE (MG/L)	90.	81.	63.	106.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	48.	47.	34.	62.
SULFATE, DISSOLVED (MG SO4/L)	4.	4.	< 1.	3.
IRON, DISSOLVED (UG FE/L)	< 50	< 50	< 50	< 50
IRON, TOTAL (UG FE/L)	240	290	120	190
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	120	150	110	80
ZINC, TOTAL (UG ZN/L)	30	10	20	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	5.	4.	7.	< 2.
CARBON, TOTAL ORGANIC (MG C/L)	5.	7.	7.	2.
CARBON DIOXIDE (MG CO2/L)	0.7	2.1	0.2	0.1
NITROGEN, TOTAL AMMONIA (MG N/L)	<0.01	<0.01	<0.01	<0.01
NITROGEN, NITRATE+NITRITE (MG N/L)	0.03	0.04	<0.01	0.14
NITROGEN, TOTAL INORGANIC (MG N/L)	<0.04	<0.05	<0.02	<0.15
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.4	0.4	0.6	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	> 0.4	> 0.4	> 0.6	> 0.5
NITROGEN, TOTAL (MG N/L)	0.4	0.4	< 0.6	0.5
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.01	0.01	0.03	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.04	0.02	0.05

TABLE D-5e

PARAMETER NAME (UNITS)	STATION 13 9/25/78	STATION 14 9/27/78	STATION 15 9/25/78	STATION 13 9/25/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM R-BK LK UPST)	30.	50.	60.	30.
SAMPLE DEPTH (METERS)	5.0	1.0	1.0	7.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	24.5	25.5	29.0	24.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	170.	210.	162.	170.
OXIDATION REDUCTION POTENTIAL (MV)	370	--	310	320
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	7.6	8.2	7.4
PH (STD UNITS)	8.20	7.50	9.40	9.00
LABORATORY DATA				
COLOR (PT-CO UNITS)	20.	10.	20.	20.
TURBIDITY, HACH TURBIDIMETER (FTU)	5.60	5.30	3.60	4.40
TOTAL NONFILTERABLE RESIDUE (MG/L)	203.	< 10.	300.	> 10.
TOTAL FILTERABLE RESIDUE (MG/L)	103.	118.	100.	100.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	62.	93.	61.	60.
SULFATE, DISSOLVED (MG SO4/L)	3.	< 1.	2.	3.
IRON, DISSOLVED (UG FE/L)	< 50	< 50	< 50	< 50
IRON, TOTAL (UG FE/L)	200	150	190	210
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	110	50	80	120
ZINC, TOTAL (UG ZN/L)	20	20	< 10	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 2.	9.	2.	< 2.
CARBON, TOTAL ORGANIC (MG C/L)	2.	16.	3.	1.
CARBON DIOXIDE (MG CO2/L)	0.7	5.4	0.4	1.1
NITROGEN, TOTAL AMMONIA (MG N/L)	<0.01	<0.01	<0.01	0.03
NITROGEN, NITRATE+NITRITE (MG N/L)	0.15	0.35	0.30	0.19
NITROGEN, TOTAL INORGANIC (MG N/L)	<0.16	<0.36	<0.31	0.22
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.4	0.3	0.5	0.4
NITROGEN, TOTAL ORGANIC (MG N/L)	> 0.4	> 0.3	> 0.5	0.4
NITROGEN, TOTAL (MG N/L)	0.5	0.6	0.8	0.6
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.01	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.01	0.06	0.05

TABLE D-5f

PARAMETER NAME (UNITS)	STATION 16 9/25/78	STATION 17 9/25/78	STATION 18 9/26/78	STATION 19 9/26/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FRCM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.0	27.0	29.5	29.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	145.	140.	135.	130.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.1	7.1	7.0	6.0
PH (STD UNITS)	8.20	7.50	7.50	7.30
LABORATORY DATA				
COLOR (PT-CO UNITS)	16.	13.	34.	19.
TURBIDITY, HACH TURBIDIMETER (FTU)	3.60	1.60	7.80	6.10
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	< 10.	< 10.
TOTAL FILTERABLE RESIDUE (MG/L)	88.	91.	85.	80.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	52.	52.	44.	43.
SULFATE, DISSOLVED (MG SO4/L)	4.	3.	4.	4.
IRON, DISSOLVED (UG FE/L)	< 50	< 50	50	< 50
IRON, TOTAL (UG FE/L)	220	150	220	250
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	60	< 50	120	130
ZINC, TOTAL (UG ZN/L)	< 10	< 10	10	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 3.	< 2.	4.	4.
CARBON, TOTAL ORGANIC (MG C/L)	1.	1.	7.	6.
CARBON DIOXIDE (MG CO2/L)	0.6	3.0	2.5	3.9
NITROGEN, TOTAL AMMONIA (MG N/L)	0.04	0.03	0.03	0.06
NITROGEN, NITRATE+NITRITE (MG N/L)	0.49	0.58	0.05	0.08
NITROGEN, TOTAL INORGANIC (MG N/L)	0.53	0.61	0.08	0.14
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.4	0.4	0.4	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	0.4	0.4	0.4
NITROGEN, TOTAL (MG N/L)	0.9	1.0	0.5	0.6
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.08	0.07	0.02	0.03
PHOSPHORUS, TOTAL (MG P/L)	0.10	0.09	0.04	0.04

TABLE D-6a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 6

WATER QUALITY SAMPLING RESULTS

Grab Samples

PARAMETER NAME (UNITS)	STATION 01 11/29/78	STATION 02 11/29/78	STATION 03 11/29/78	STATION 04 11/29/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	19.0	18.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	121.	151.	190.	95.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.1	9.5	9.4	9.3
PH (STD UNITS)	7.00	7.10	7.20	7.20
LABORATORY DATA				
COLOR (PT-CO UNITS)	24.	30.	35.	29.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.20	9.10	9.80	9.40
TOTAL NONFILTERABLE RESIDUE (MG/L)	36.	--	< 10.	16.
TOTAL FILTERABLE RESIDUE (MG/L)	55.	126.	59.	62.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	16.	16.	16.	16.
CHLORIDE (MG CL/L)	3.	5.	5.	5.
SULFATE, DISSOLVED (MG SO4/L)	7.	7.	7.	7.
CALCIUM, TOTAL (MG CA/L)	3.0	3.8	4.3	3.9
HARDNESS, TOTAL (MG CACO3/L)	12.2	13.9	15.4	14.6
IRON, DISSOLVED (UG FE/L)	< 50	60	60	90
IRON, TOTAL (UG FE/L)	780	810	950	900
MAGNESIUM, TOTAL (MG MG/L)	1.1	1.1	1.2	1.2
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	50	60	70	70
POTASSIUM, TOTAL (MG K/L)	2.4	2.3	2.2	2.2
SODIUM, TOTAL (MG NA/L)	6.08	5.72	5.55	5.55
ZINC, TOTAL (UG ZN/L)	< 10	< 10	< 10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 5.	3.	< 6.	< 5.
CARBON, TOTAL ORGANIC (MG C/L)	4.	4.	5.	3.
CARBON DIOXIDE (MG CO2/L)	3.4	2.5	2.1	2.1
NITROGEN, TOTAL AMMONIA (MG N/L)	0.04	0.03	0.01	<0.01
NITROGEN, NITRATE+NITRITE (MG N/L)	0.31	0.30	0.31	0.32
NITROGEN, TOTAL INORGANIC (MG N/L)	0.35	0.33	0.33	0.32
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.4	0.4	0.3	0.3
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	0.4	0.3	0.3
NITROGEN, TOTAL (MG N/L)	0.7	0.7	0.6	0.5
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.01	0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.04	0.04	0.04

TABLE D-6b

PARAMETER NAME (UNITS)	STATION 05 11/29/78	STATION 06 11/29/78	STATION 07 11/30/78	STATION 07 11/30/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	50.	50.	50.	60.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	5.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	18.0	19.0	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	109.	101.	112.	112.
OXIDATION REDUCTION POTENTIAL (MV)	--	--	370	360
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.6	8.2	8.4	8.2
PH (STD UNITS)	7.20	7.20	7.10	7.10
LABORATORY DATA				
COLOR (PT-CO UNITS)	60.	55.	65.	70.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.30	9.40	9.70	30.00
TOTAL NONFILTERABLE RESIDUE (MG/L)	12.	< 10.	> 10.	97.
TOTAL FILTERABLE RESIDUE (MG/L)	79.	73.	88.	86.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	26.	26.	29.	31.
CHLORIDE (MG CL/L)	3.	5.	5.	5.
SULFATE, DISSOLVED (MG SO4/L)	12.	11.	13.	12.
CALCIUM, TOTAL (MG CA/L)	4.8	4.0	5.0	5.4
HARDNESS, TOTAL (MG CACO3/L)	17.2	17.3	20.0	19.3
IRON, DISSOLVED (UG FE/L)	80	80	70	80
IRON, TOTAL (UG FE/L)	930	750	870	4100
MAGNESIUM, TOTAL (MG MG/L)	1.3	1.8	1.3	1.4
MANGANESE, DISSOLVED (UG MN/L)	50	70	110	130
MANGANESE, TOTAL (UG MN/L)	90	100	150	590
POTASSIUM, TOTAL (MG K/L)	2.6	2.4	2.3	2.8
SODIUM, TOTAL (MG NA/L)	10.90	10.00	12.40	12.70
ZINC, TOTAL (UG ZN/L)	< 10	< 10	10	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 11.	7.	< 11.	8.
CARBON, TOTAL ORGANIC (MG C/L)	7.	7.	8.	9.
CARBON DIOXIDE (MG CO2/L)	3.4	3.4	4.6	5.0
NITROGEN, TOTAL AMMONIA (MG N/L)	0.02	<0.01	0.02	0.03
NITROGEN, NITRATE+NITRITE (MG N/L)	0.32	0.29	0.27	0.26
NITROGEN, TOTAL INORGANIC (MG N/L)	0.34	0.30	0.30	0.30
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.4	0.4	0.6	0.8
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	0.4	0.6	0.8
NITROGEN, TOTAL (MG N/L)	0.7	0.7	0.9	1.1
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.01	0.05
PHOSPHORUS, TOTAL (MG P/L)	0.03	0.04	0.05	0.06

TABLE D-6c

PARAMETER NAME (UNITS)	STATION 08 11/30/78	STATION 09 11/29/78	STATION 09 11/29/78	STATION 10 11/28/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFFCM F-BK LK UPST)	--	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	5.0	0.5
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	19.0	18.5	18.0	18.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	117.	124.	112.	97.
OXIDATION REDUCTION POTENTIAL (MV)	370	390	370	400
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.1	6.8	7.2	8.4
PH (STD UNITS)	7.30	7.10	7.00	7.40
LABORATORY DATA				
COLOR (PT-CO UNITS)	70.	47.	47.	24.
TURBIDITY, HACH TURBIDIMETER (FTU)	7.50	8.00	7.60	14.00
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	15.	12.	18.
TOTAL FILTERABLE RESIDUE (MG/L)	87.	77.	75.	76.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	33.	31.	30.	25.
CHLORIDE (MG CL/L)	5.	4.	4.	6.
SULFATE, DISSOLVED (MG SO4/L)	15.	11.	11.	8.
CALCIUM, TOTAL (MG CA/L)	5.1	5.9	6.9	5.0
HARDNESS, TOTAL (MG CACO3/L)	18.0	19.6	22.5	17.6
IRON, DISSOLVED (UG FE/L)	90	110	80	60
IRON, TOTAL (UG FE/L)	750	640	230	1130
MAGNESIUM, TOTAL (MG MG/L)	1.3	1.2	1.3	1.3
MANGANESE, DISSOLVED (UG MN/L)	110	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	150	90	130	100
POTASSIUM, TOTAL (MG K/L)	2.8	2.5	2.5	2.4
SODIUM, TOTAL (MG NA/L)	13.40	8.59	9.48	8.05
ZINC, TOTAL (UG ZN/L)	< 10	< 10	< 10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 10.	6.	6.	< 6.
CARBON, TOTAL ORGANIC (MG C/L)	9.	7.	6.	5.
CARBON DIOXIDE (MG CO2/L)	3.4	5.1	6.3	2.1
NITROGEN, TOTAL AMMONIA (MG N/L)	0.03	0.07	0.05	0.03
NITROGEN, NITRATE+NITRITE (MG N/L)	0.28	0.25	0.27	0.26
NITROGEN, TOTAL INORGANIC (MG N/L)	0.31	0.32	0.31	0.29
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.6	0.4	0.4	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	0.6	0.3	0.4	0.4
NITROGEN, TOTAL (MG N/L)	0.9	0.6	0.7	0.7
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.04	0.05	0.07

TABLE D-6d

PARAMETER NAME (UNITS)	STATION 11 11/28/78	STATION 11 11/29/79	STATION 13 11/29/78	STATION 13 11/29/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM P-BK LK UPST)	85.	85.	90.	90.
SAMPLE DEPTH (METERS)	1.0	4.0	1.0	7.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	18.5	18.5	18.5	19.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	117.	113.	149.	148.
OXIDATION REDUCTION POTENTIAL (MV)	420	410	420	420
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.4	7.9	8.0	9.0
PH (STD UNITS)	7.70	7.70	7.90	7.80
LABORATORY DATA				
COLOR (PT-CO UNITS)	18.	18.	15.	14.
TURBIDITY, HACH TURBIDIMETER (FTU)	10.00	11.00	6.00	5.50
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	12.	< 10.	< 10.
TOTAL FILTERABLE RESIDUE (MG/L)	72.	73.	90.	105.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	37.	35.	59.	59.
CHLORIDE (MG CL/L)	6.	5.	6.	5.
SULFATE, DISSOLVED (MG SO4/L)	8.	8.	4.	2.
CALCIUM, TOTAL (MG CA/L)	8.3	8.2	15.1	15.8
HARDNESS, TOTAL (MG CACO3/L)	25.7	25.5	42.6	44.3
IRON, DISSOLVED (UG FE/L)	< 50	60	< 50	< 50
IRON, TOTAL (UG FE/L)	770	850	450	930
MAGNESIUM, TOTAL (MG MG/L)	1.2	1.3	1.2	1.2
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	60	70	60	80
POTASSIUM, TOTAL (MG K/L)	2.1	2.1	1.0	0.9
SODIUM, TOTAL (MG NA/L)	7.98	7.95	4.01	4.15
ZINC, TOTAL (UG ZN/L)	< 10	< 10	< 10	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 7.	< 6.	< 2.	< 15.
CARBON, TOTAL ORGANIC (MG C/L)	6.	6.	3.	4.
CARBON DIOXIDE (MG CO2/L)	1.6	1.4	1.5	1.9
NITROGEN, TOTAL AMMONIA (MG N/L)	0.02	0.02	0.03	0.04
NITROGEN, NITRATE+NITRITE (MG N/L)	0.28	0.25	0.62	0.57
NITROGEN, TOTAL INORGANIC (MG N/L)	0.30	0.28	0.65	0.60
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.4	0.3	0.4
NITROGEN, TOTAL ORGANIC (MG N/L)	0.4	0.3	0.3	0.3
NITROGEN, TOTAL (MG N/L)	0.7	0.5	1.0	0.9
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.04	0.03
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.05	0.06	0.07

Note: Station 12 not sampled due to low water.

TABLE D-6e

PARAMETER NAME (UNITS)	STATION 14 11/30/78	STATION 15 11/29/78	STATION 15 11/29/78	STATION 16 11/29/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM R-BK LK UPST)	--	50.	50.	50.
SAMPLE DEPTH (METERS)	1.0	1.0	5.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	19.0	18.5	18.5	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	140.	145.	143.	141.
OXIDATION REDUCTION POTENTIAL (MV)	--	440	450	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.6	8.5	9.2	9.1
PH (STD UNITS)	7.30	7.90	7.80	7.30
LABORATORY DATA				
COLOR (PT-CO UNITS)	30.	20.	20.	20.
TURBIDITY, HACH TURBIDIMETER (FTU)	11.00	8.00	10.00	4.80
TOTAL NONFILTERABLE RESIDUE (MG/L)	24.	< 10.	< 10.	< 10.
TOTAL FILTERABLE RESIDUE (MG/L)	84.	87.	82.	86.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	64.	53.	53.	53.
CHLORIDE (MG CL/L)	3.	5.	6.	4.
SULFATE, DISSOLVED (MG SO4/L)	6.	3.	3.	2.
CALCIUM, TOTAL (MG CA/L)	15.9	17.8	14.4	13.6
HARDNESS, TOTAL (MG CACO3/L)	42.3	49.2	40.6	37.5
IRON, DISSOLVED (UG FE/L)	< 50	< 50	< 50	120
IRON, TOTAL (UG FE/L)	1370	680	940	470
MAGNESIUM, TOTAL (MG MG/L)	0.7	1.2	1.1	0.9
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	130	60	90	< 50
POTASSIUM, TOTAL (MG K/L)	0.7	0.9	1.0	0.8
SODIUM, TOTAL (MG NA/L)	1.14	4.29	4.22	3.94
ZINC, TOTAL (UG ZN/L)	< 10	< 10	20	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	6.	4.	< 6.	< 6.
CARBON, TOTAL ORGANIC (MG C/L)	6.	5.	4.	3.
CARBON DIOXIDE (MG CO2/L)	6.6	1.4	1.7	5.6
NITROGEN, TOTAL AMMONIA (MG N/L)	0.12	0.09	0.04	0.05
NITROGEN, NITRATE+NITRITE (MG N/L)	0.10	0.55	0.53	0.64
NITROGEN, TOTAL INORGANIC (MG N/L)	0.22	0.59	0.57	0.69
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.6	0.3	0.3	0.4
NITROGEN, TOTAL ORGANIC (MG N/L)	0.7	0.3	0.3	0.3
NITROGEN, TOTAL (MG N/L)	0.9	0.9	0.8	1.0
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	0.02	0.05	0.05
PHOSPHORUS, TOTAL (MG P/L)	0.07	0.09	0.09	0.09

TABLE D-6f

PARAMETER NAME (UNITS)	STATION 17 11/23/78	STATION 18 11/30/78
PHYSICAL DATA		
MISCELLANEOUS DATA		
X-SECTION LOC (%FROM R-BK LK UPST)	50.	5.
SAMPLE DEPTH (METERS)	1.0	1.0
FIELD MEASUREMENTS		
WATER TEMPERATURE (DEG C)	18.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	145.	122.
OXIDATION REDUCTION POTENTIAL (MV)	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	9.0
PH (STD UNITS)	7.20	7.60
LABORATORY DATA		
COLOR (PT-CO UNITS)	20.	21.
TURBIDITY, HACH TURBIDIMETER (FTU)	4.20	8.00
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.
TOTAL FILTERABLE RESIDUE (MG/L)	91.	99.
CHEMICAL DATA		
MINERALS AND METALS		
ALKALINITY, TOTAL (MG CACO3/L)	55.	47.
CHLORIDE (MG CL/L)	5.	5.
SULFATE, DISSOLVED (MG SO4/L)	2.	< 1.
CALCIUM, TOTAL (MG CA/L)	16.3	14.2
HARDNESS, TOTAL (MG CACO3/L)	44.6	40.3
IRON, DISSOLVED (UG FE/L)	250	< 50
IRON, TOTAL (UG FE/L)	490	490
MAGNESIUM, TOTAL (MG MG/L)	0.9	1.3
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	60
POTASSIUM, TOTAL (MG K/L)	1.0	1.5
SODIUM, TOTAL (MG NA/L)	4.40	6.25
ZINC, TOTAL (UG ZN/L)	< 10	< 10
NUTRIENTS		
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	5.
CARBON, TOTAL ORGANIC (MG C/L)	4.	6.
CARBON DIOXIDE (MG CO2/L)	7.2	2.4
NITROGEN, TOTAL AMMONIA (MG N/L)	0.03	0.09
NITROGEN, NITRATE+NITRITE (MG N/L)	0.58	0.25
NITROGEN, TOTAL INORGANIC (MG N/L)	0.61	0.34
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.2	0.5
NITROGEN, TOTAL ORGANIC (MG N/L)	0.2	0.4
NITROGEN, TOTAL (MG N/L)	0.8	0.7
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.05	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.08	0.03

Note: Station 19 not sampled due to equipment malfunction.

TABLE D-7

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE 1, CYCLE 1

WATER QUALITY SAMPLING RESULTS
Special Station - Grab Sample

PARAMETER NAME (UNITS)	STATION A0 4/17/78	STATION B0 4/17/78
PHYSICAL DATA		
MISCELLANEOUS DATA		
X-SECTION LOC (%FROM R-BK LK UPST)	--	50.
SAMPLE DEPTH (METERS)	1.0	1.0
FIELD MEASUREMENTS		
WATER TEMPERATURE (DEG C)	19.0	19.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	65.	75.
OXIDATION REDUCTION POTENTIAL (MV)	530	380
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.2	9.3
PH (STD UNITS)	7.40	7.60
LABORATORY DATA		
TURBIDITY, HACH TURBIDIMETER (FTU)	22.00	29.00

TABLE D-8

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

WATER QUALITY SAMPLING RESULTS

Special Station - Grab Sample

PARAMETER NAME (UNITS)	STATION A0 6/ 7/78	STATION B0 5/ 7/78	STATION B1 6/ 5/78	STATION B2 6/ 6/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (XFROM R-BK LK UPST)	90.	20.	0.	0.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	24.1	24.0	--	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	60.	78.	--	--
OXIDATION REDUCTION POTENTIAL (MV)	620	160	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.7	7.1	--	--
PH (STD UNITS)	7.00	7.00	--	--
LABORATORY DATA				
TURBIDITY, HACH TURBIDIMETER (FTU)	40.00	100.00	--	--
BIOLOGICAL DATA				
** BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	--	1.26	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	--	--	1.08	1.15
FC/FS RATIO	--	--	1.50	<0.07

** Note: Sampled at 0.3 meters

PARAMETER NAME (UNITS)	STATION FE 6/ 6/78
PHYSICAL DATA	
MISCELLANEOUS DATA	
X-SECTION LOC (XFROM R-BK LK UPST)	15.
SAMPLE DEPTH (METERS)	1.0
FIELD MEASUREMENTS	
WATER TEMPERATURE (DEG C)	27.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	95.
OXIDATION REDUCTION POTENTIAL (MV)	440
DISSOLVED OXYGEN, ELECTRODE (MG/L)	8.1
PH (STD UNITS)	7.00
LABORATORY DATA	
TURBIDITY, HACH TURBIDIMETER (FTU)	29.00
BIOLOGICAL DATA	
** BACTERIOLOGICAL DATA	
FECAL COLIFORM (LOG10(/100ML))	--
FECAL STREPTOCOCCI (LOG10(/100ML))	--
FC/FS RATIO	--

** Note: Sampled at 0.3 meters

TABLE D-9

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I. CYCLE 3

WATER QUALITY SAMPLING RESULTS
Special Station - Grab Sample

PARAMETER NAME (UNITS)	STATION A0 7/19/78	STATION B0 7/19/78	STATION B1 7/18/78	STATION B2 7/17/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-OK LK UPST)	90.	20.	0.	0.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	29.0	29.0	--	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	68.	108.	--	--
OXIDATION REDUCTION POTENTIAL (MV)	510	60	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.9	7.6	--	--
PH (STD UNITS)	7.00	7.20	--	--
LABORATORY DATA				
TURBIDITY, HACH TURBIDIMETER (FTU)	10.00	23.00	--	--
BIOLOGICAL DATA				
** BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	--	1.00	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	--	--	1.18	<0.00
FC/FS RATIO	--	--	0.67	< --

** Note: Sampled at 0.3 meters

PARAMETER NAME (UNITS)	STATION FE 7/18/78
PHYSICAL DATA	
MISCELLANEOUS DATA	
X-SECTION LOC (%FROM R-OK LK UPST)	15.
SAMPLE DEPTH (METERS)	1.0
FIELD MEASUREMENTS	
WATER TEMPERATURE (DEG C)	31.5
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	94.
OXIDATION REDUCTION POTENTIAL (MV)	370
DISSOLVED OXYGEN, ELECTRODE (MG/L)	9.9
PH (STD UNITS)	8.40
LABORATORY DATA	
TURBIDITY, HACH TURBIDIMETER (FTU)	5.70
BIOLOGICAL DATA	
** BACTERIOLOGICAL DATA	
FECAL COLIFORM (LOG10(/100ML))	--
FECAL STREPTOCOCCI (LOG10(/100ML))	--
FC/FS RATIO	--

** Note: Sampled at 0.3 meters

TABLE D-10

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

WATER QUALITY SAMPLING RESULTS
Special Station - Grab Sample

PARAMETER NAME (UNITS)	STATION A0 8/17/78	STATION B0 8/17/78	STATION B1 8/14/78	STATION B2 8/14/78
PHYSICAL DATA				
MISCELLANEOUS DATA				
X-SECTION LOC (%FROM R-BK LK UPST)	90.	20.	0.	0.
SAMPLE DEPTH (METERS)	1.0	1.0	1.0	1.0
FIELD MEASUREMENTS				
WATER TEMPERATURE (DEG C)	28.0	28.5	--	--
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	75.	80.	--	--
OXIDATION REDUCTION POTENTIAL (MV)	370	330	--	--
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4	7.2	--	--
PH (STD UNITS)	7.10	6.50	--	--
LABORATORY DATA				
TURBIDITY, HACH TURBIDIMETER (FTU)	7.00	7.20	--	--
BIOLOGICAL DATA				
** BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	--	0.00	1.28
FECAL STREPTOCOCCI (LOG10(/100ML))	--	--	<1.00	<0.00
FC/FS RATIO	--	--	>1.00	>5.00

** Note: Sampled at 0.3 meters

PARAMETER NAME (UNITS)	STATION FE 8/16/78
PHYSICAL DATA	
MISCELLANEOUS DATA	
X-SECTION LOC (%FROM R-BK LK UPST)	--
SAMPLE DEPTH (METERS)	1.0
FIELD MEASUREMENTS	
WATER TEMPERATURE (DEG C)	30.0
SPEC CONDUCTANCE, FLD (UMHO/CM 25C)	90.
OXIDATION REDUCTION POTENTIAL (MV)	390
DISSOLVED OXYGEN, ELECTRODE (MG/L)	7.4
PH (STD UNITS)	7.40
LABORATORY DATA	
TURBIDITY, HACH TURBIDIMETER (FTU)	14.00
BIOLOGICAL DATA	
** BACTERIOLOGICAL DATA	
FECAL COLIFORM (LOG10(/100ML))	--
FECAL STREPTOCOCCI (LOG10(/100ML))	--
FC/FS RATIO	--

** Note: Sampled at 0.3 meters

TABLE D-11

Water Quality Sampling Results
Phase I, Cycle 5

Parameter Name (Units)	Station A0 9/27/78	Station B0 9/27/78	Station B1 9/25/78	Station B2 9/25/78	Station Fe 9/26/78
Physical Data					
Miscellaneous Data					
X-Section Loc (%From R-BK LK Upst)	90	20	--	--	15
Sample Depth (Meters)	1.0	1.0	1.0	1.0	1.0
Field Measurements					
Water Temperature (Deg C)	27.5	28	--	--	28.0
Spec Conductance Fld (umho/cm 25C)	80	80	--	--	95
Oxidation Reduction Potential (mV)	450	80	--	--	420
Dissolved Oxygen, Electrode (mg/l)	8.2	7.9	--	--	7.5
PH (Std units)	7.3	7.5	--	--	7.5
Laboratory Data					
Turbidity, Hach Turbidimeter (FTU)	2.96	4.56	--	--	9.56
Biological Data					
** Bacteriological Data					
Fecal Coliform (Log 10 (/100ml))			0.0		0.0
Fecal Streptococci (Log 10(/100ml))			1.57		0.0
FC/FS ratio			1.00		1.00

** Note: Sampled at 0.3 meters

TABLE D-12

Water Quality Sampling Results
Phase I, Cycle 6

Parameter Name (Units)	Station A0 11/29/78	Station B0 11/29/78	Station Fe
Physical Data			
Miscellaneous Data			
X-Section Loc (%From R-BK LK Upst)	90	5	40
Sample Depth (Meters)	1.0	1.0	1.0
Field Measurements			
Water Temperature (Deg C)	18.0	18.0	18.5
Spec Conductance, Fld (umho/cm 25C)	180	103	129
Oxidation Reduction Potential (mV)	370	290	370
Dissolved Oxygen, Electrode (mg/l)	9.4	9.1	6.6
PH (Std units)	7.00	6.60	7.00
Laboratory Data			
Turbidity, Hach Turbidimeter (FTU)	7.56	9.06	6.76

TABLE D-13a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 4/17/78	STATION 02 4/18/78	STATION 03 4/18/78	STATION 04 4/18/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	--	—	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	90.	80.	70.	130.
BIOMASS, PLANKTON (MG/CU M)	7.	9.	< 1.	7.
CHLOROPHYLL-A (UG/L)	8.3	6.4	6.5	5.7
CHLOROPHYLL-B (UG/L)	2.0	1.4	1.3	1.6
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	0.2

PARAMETER NAME (UNITS)	STATION 05 4/17/78	STATION 06 4/18/78	STATION 07 4/19/78	STATION 08 4/19/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	9.53	8.83	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	180.	100.	80.	80.
BIOMASS, PLANKTON (MG/CU M)	7.	5.	3.	4.
CHLOROPHYLL-A (UG/L)	4.8	4.2	4.3	3.6
CHLOROPHYLL-B (UG/L)	1.4	1.0	0.5	0.3
CHLOROPHYLL-C (UG/L)	0.2	< 0.1	< 0.1	< 0.1

PARAMETER NAME (UNITS)	STATION 09 4/19/78	STATION 10 4/20/78	STATION 11 4/20/78	STATION 12 4/20/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	7.81	8.41	9.75	1.65
BIOMASS MEASUREMENTS				
ATP (NG/L)	150.	80.	90.	30.
BIOMASS, PLANKTON (MG/CU M)	1.	< 1.	< 1.	2.
CHLOROPHYLL-A (UG/L)	4.2	4.7	5.6	3.6
CHLOROPHYLL-B (UG/L)	1.3	< 0.1	0.3	< 0.1
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	< 0.1

TABLE D-13b

PARAMETER NAME (UNITS)	STATION 13 4/20/78	STATION 14 4/20/78	STATION 15 4/21/78	STATION 16 4/21/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	11.40	3.52	14.90	13.40
BIOMASS MEASUREMENTS				
ATP (NG/L)	80.	60.	60.	< 30.
BIOMASS, PLANKTON (MG/CU M)	4.	2.	< 1.	5.
CHLOROPHYLL-A (UG/L)	6.9	2.5	3.2	3.0
CHLOROPHYLL-B (UG/L)	1.4	< 0.1	0.2	0.3
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	< 0.1

PARAMETER NAME (UNITS)	STATION 17 4/21/78	STATION 18 4/19/78	STATION 19 4/19/78
BIOLOGICAL DATA			
ALGAL GROWTH POTENTIAL			
ALGAL GROWTH POTENTIAL (MG/L)	--	10.30	--
BIOMASS MEASUREMENTS			
ATP (NG/L)	40.	< 70.	170.
BIOMASS, PLANKTON (MG/CU M)	3.	6.	< 1.
CHLOROPHYLL-A (UG/L)	3.0	9.4	2.6
CHLOROPHYLL-B (UG/L)	0.3	0.7	0.1
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1

Notes: Bacteriological data from grab samples taken at 0.3 meters.

All other data from depth integrated samples composited from individual grab samples taken at 1 meter intervals above the depth of 1% light transmittance (or 8 equally spaced intervals where this zone is >7 meters).

Algal Growth Potential results represent the mean of the 12-day mean algal concentrations in the unspiked water.

TABLE D-14a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 6/ 7/78	STATION 02 6/ 7/78	STATION 03 6/ 7/78	STATION 04 6/ 7/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	--	--	--
FECAL STREPTOCOCCI (LOG10(/100ML))	2.60	2.96	3.11	--
FC/FS RATIO	--	--	--	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	110.	<100.	<100.	90.
BIOMASS, PLANKTON (MG/CU M)	2.	5.	4.	8.
CHLOROPHYLL-A (UG/L)	3.5	2.9	3.7	4.1
CHLOROPHYLL-B (UG/L)	0.8	0.1	0.9	0.9
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	0.3	< 0.1

PARAMETER NAME (UNITS)	STATION 05 6/ 7/78	STATION 06 6/ 7/78	STATION 07 6/ 6/78	STATION 08 6/ 6/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	--	2.90	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	3.57	3.79	2.43	2.32
FC/FS RATIO	--	--	2.96	<0.01
BIOMASS MEASUREMENTS				
ATP (NG/L)	<100.	<100.	100.	120.
BIOMASS, PLANKTON (MG/CU M)	6.	21.	2.	4.
CHLOROPHYLL-A (UG/L)	3.1	4.0	2.5	3.1
CHLOROPHYLL-B (UG/L)	1.0	1.4	0.2	0.5
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	0.2

PARAMETER NAME (UNITS)	STATION 09 6/ 6/78	STATION 10 6/ 6/78	STATION 11 6/ 6/78	STATION 12 6/ 7/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	<0.00	0.90	<0.00	--
FECAL STREPTOCOCCI (LOG10(/100ML))	0.95	<0.00	0.00	0.30
FC/FS RATIO	<0.11	>8.00	<1.00	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	500.	500.	400.	30.
BIOMASS, PLANKTON (MG/CU M)	3.	2.	3.	< 1.
CHLOROPHYLL-A (UG/L)	14.4	21.7	9.0	0.6
CHLOROPHYLL-B (UG/L)	1.2	0.7	2.9	0.3
CHLOROPHYLL-C (UG/L)	0.4	0.2	0.6	< 0.1

TABLE D-14b

PARAMETER NAME (UNITS)	STATION 13 6/ 5/78	STATION 14 6/ 5/78	STATION 15 6/ 5/78	STATION 16 6/ 5/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLFORM (LOG10(/100ML))	<0.00	1.19	1.15	2.36
FECAL STREPTOCOCCI (LOG10(/100ML))	0.55	1.09	1.18	1.92
FC/FS RATIO	<0.14	1.25	0.93	2.77
BIOMASS MEASUREMENTS				
ATP (NG/L)	560.	70.	130.	30.
BIOMASS, PLANKTON (MG/CU M)	< 1.	< 1.	< 1.	< 1.
CHLOROPHYLL-A (UG/L)	11.0	6.3	11.2	1.6
CHLOROPHYLL-B (UG/L)	1.2	1.3	1.1	0.5
CHLOROPHYLL-C (UG/L)	< 0.1	0.2	< 0.1	< 0.1

PARAMETER NAME (UNITS)	STATION 17 6/ 5/78	STATION 18 6/ 6/78	STATION 19 6/ 6/78
BIOLOGICAL DATA			
BACTERIOLOGICAL DATA			
FECAL COLFORM (LOG10(/100ML))	3.40	<0.00	0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	2.86	2.85	3.18
FC/FS RATIO	3.42	<0.01	<0.01
BIOMASS MEASUREMENTS			
ATP (NG/L)	30.	90.	220.
BIOMASS, PLANKTON (MG/CU M)	< 1.	5.	3.
CHLOROPHYLL-A (UG/L)	1.3	5.6	4.7
CHLOROPHYLL-B (UG/L)	0.3	0.5	0.1
CHLOROPHYLL-C (UG/L)	0.1	0.1	< 0.1

Notes: Bacteriological data from grab samples taken at 0.3 meters.

All other data from depth integrated samples composited from individual grab samples taken at 1 meter intervals above the depth of 1% light transmittance (or 8 equally spaced intervals where this zone is >7 meters).

TABLE D-15a

[illegible] WATER QUALITY MANAGEMENT STUDY --
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE [illegible]

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 7/1[illegible]/78	STATION 02 7/1[illegible]/78	STATION 03 7/1[illegible]/78	STATION 04 7/1[illegible]/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	--	--	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	1.7[illegible]	1.85	1.90	2.18
FECAL STREPTOCOCCI (LOG10(/100ML))	1.5[illegible]	1.30	1.79	1.99
FC/FS RATIO	1.56	3.50	1.29	1.53
BIOMASS MEASUREMENTS				
ATP (NG/L)	170.	70.	50.	100.
BIOMASS, PLANKTON (MG/CU M)	2.	< 1.	3.	5.
CHLOROPHYLL-A (UG/L)	[illegible]	11.7	11.3	11.0
CHLOROPHYLL-B (UG/L)	0.9	1.2	1.5	1.2
CHLOROPHYLL-C (UG/L)	< 0.1	0.7	0.5	0.4

PARAMETER NAME (UNITS)	STATION 05 7/1[illegible]/78	STATION 06 7/20/78	STATION 07 7/20/78	STATION [illegible]7 7/20/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	5.[illegible]	6.19	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	2.70	2.74	1.00	--
FECAL STREPTOCOCCI (LOG10(/100ML))	2.91	2.54	0.95	--
FC/FS RATIO	0.62	1.71	1.11	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	60.	100.	400.	--
BIOMASS, PLANKTON (MG/CU M)	3.	3.	< 1.	--
CHLOROPHYLL-A (UG/L)	10.0	7.9	9.5	--
CHLOROPHYLL-B (UG/L)	1.9	1.2	1.0	--
CHLOROPHYLL-C (UG/L)	0.5	0.1	0.3	--

TABLE D-15b

PARAMETER NAME (UNITS)	STATION 06 7/1[illegible]/78	STATION 07 7/1[illegible]/78	STATION 09 7/1[illegible]/78	STATION 10 7/1[illegible]/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	4.94	--	3.47
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.78	<0.00	--	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	1.49	1.32	--	0.95
FC/FS RATIO	0.19	<0.05	--	<0.11
ATP (NG/L)	80.	60.	--	70.
BIOMASS, PLANKTON (MG/CU M)	3.	4.	--	< 1.
CHLOROPHYLL-A (UG/L)	10.8	11.9	--	14.5
CHLOROPHYLL-B (UG/L)	1.3	1.4	--	1.7
CHLOROPHYLL-C (UG/L)	0.5	0.2	--	0.3

PARAMETER NAME (UNITS)	STATION 11 7/1[illegible]/78	STATION 11 7/1[illegible]/78	STATION 12 7/1[illegible]/78	STATION 13 7/1[illegible]/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	5.43	--	2.36	5.22
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	<0.00	--	<0.00	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	1.7[illegible]	--	0.48	0.00
FC/FS RATIO	<0.02	--	<0.33	<1.00
BIOMASS MEASUREMENTS				
ATP (NG/L)	40.	--	40.	30.
BIOMASS, PLANKTON (MG/CU M)	< 1.	--	< 1.	3.
CHLOROPHYLL-A (UG/L)	10.[illegible]	--	2.2	10.2
CHLOROPHYLL-B (UG/L)	0.[illegible]	--	0.[illegible]	1.2
CHLOROPHYLL-C (UG/L)	< 0.1	--	0.4	0.1

TABLE D-15c

PARAMETER NAME (UNITS)	STATION 13 7/17/78	STATION 14 7/17/78	STATION 15 7/17/78	STATION 13 7/17/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	2.40	5.15	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	0.60	0.00	--
FECAL STREPTOCOCCI (LOG10(/100ML))	--	0.00	<0.00	--
FC/FS RATIO	--	4.00	>1.00	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	--	40.	470.	--
BIOMASS, PLANKTON (MG/CU M)	--	2.	2.	--
CHLOROPHYLL-A (UG/L)	--	6.9	13.2	--
CHLOROPHYLL-B (UG/L)	--	1.4	2.7	--
CHLOROPHYLL-C (UG/L)	--	< 0.1	0.2	--

PARAMETER NAME (UNITS)	STATION 16 7/17/78	STATION 17 7/17/78	STATION 18 7/18/78	STATION 19 7/18/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	14.70	--	5.72	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	1.86	1.68	1.30	0.85
FECAL STREPTOCOCCI (LOG10(/100ML))	0.85	1.55	2.95	2.95
FC/FS RATIO	10.40	1.35	0.03	<0.01
BIOMASS MEASUREMENTS				
ATP (NG/L)	90.	< 10.	80.	40.
BIOMASS, PLANKTON (MG/CU M)	< 1.	< 1.	2.	2.
CHLOROPHYLL-A (UG/L)	4.2	3.1	9.1	8.6
CHLOROPHYLL-B (UG/L)	0.6	0.5	0.4	1.2
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	0.4	1.3

Notes: Bacteriological data from grab samples taken at 0.3 meters.

All other data from depth integrated samples composited from individual grab samples taken at 1 meter intervals above the depth of 1% light tranmittance (or 8 equally spaced intervals where this zone is >7 meters.

Algal Growth Potential results represent the mean of the 12-day and 14-day mean algal concentrations in the unspiked water.

TABLE D-16a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 02 8/17/78	STATION 03 8/17/78	STATION 04 8/17/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	1.70	1.70	1.48	1.60
FECAL STREPTOCOCCI (LOG10(/100ML))	1.53	1.59	1.61	1.51
FC/FS RATIO	0.74	1.30	0.73	1.30
BIOMASS MEASUREMENTS				
ATP (NG/L)	70.	130.	110.	90.
BIOMASS, PLANKTON (MG/CU M)	9.	2.	2.	3.
CHLOROPHYLL-A (UG/L)	9.7	9.5	9.9	11.0
CHLOROPHYLL-B (UG/L)	0.7	0.7	1.6	0.7
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	0.9	0.5

PARAMETER NAME (UNITS)	STATION 05 8/17/78	STATION 06 8/17/78	STATION 07 8/16/78	STATION 07 8/16/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	1.45	1.93	<0.00	--
FECAL STREPTOCOCCI (LOG10(/100ML))	1.60	1.57	1.11	--
FC/FS RATIO	0.70	2.30	<0.08	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	80.	80.	70.	--
BIOMASS, PLANKTON (MG/CU M)	3.	2.	2.	--
CHLOROPHYLL-A (UG/L)	11.5	10.5	9.8	--
CHLOROPHYLL-B (UG/L)	1.9	1.3	2.0	--
CHLOROPHYLL-C (UG/L)	1.1	0.6	< 0.1	--

PARAMETER NAME (UNITS)	STATION 08 8/16/78	STATION 09 8/16/78	STATION 09 8/16/78	STATION 10 8/15/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.49	0.30	--	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	1.36	0.85	--	0.30
FC/FS RATIO	0.13	0.29	--	<0.50
BIOMASS MEASUREMENTS				
ATP (NG/L)	90.	100.	--	120.
BIOMASS, PLANKTON (MG/CU M)	3.	3.	--	3.
CHLOROPHYLL-A (UG/L)	9.3	12.2	--	19.0
CHLOROPHYLL-B (UG/L)	0.4	1.5	--	0.9
CHLOROPHYLL-C (UG/L)	< 0.1	0.4	--	0.1

TABLE D-16b

PARAMETER NAME (UNITS)	STATION 11 8/16/78	STATION 11 8/16/78	STATION 12 8/15/78	STATION 13 8/14/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLFORM (LOG10(/100ML))	0.00	--	<0.00	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	<0.00	--	<0.00	1.34
FC/FS RATIO	>1.00	--	--	<0.05
BIOMASS MEASUREMENTS				
ATP (NG/L)	70.	--	30.	116.
BIOMASS, PLANKTON (MG/CU M)	2.	--	< 1.	3.
CHLOROPHYLL-A (UG/L)	14.7	--	1.8	22.9
CHLOROPHYLL-B (UG/L)	1.8	--	0.5	2.5
CHLOROPHYLL-C (UG/L)	0.7	--	0.1	1.5

PARAMETER NAME (UNITS)	STATION 13 8/14/78	STATION 14 8/15/78	STATION 15 8/14/78	STATION 15 8/14/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLFORM (LOG10(/100ML))	--	1.65	1.32	--
FECAL STREPTOCOCCI (LOG10(/100ML))	--	1.15	1.09	--
FC/FS RATIO	--	3.20	1.60	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	--	90.	330.	--
BIOMASS, PLANKTON (MG/CU M)	--	< 1.	3.	--
CHLOROPHYLL-A (UG/L)	--	4.6	28.3	--
CHLOROPHYLL-B (UG/L)	--	1.5	5.1	--
CHLOROPHYLL-C (UG/L)	--	0.2	2.2	--

PARAMETER NAME (UNITS)	STATION 16 8/14/78	STATION 17 8/14/78	STATION 18 8/16/78	STATION 19 8/16/78
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLFORM (LOG10(/100ML))	2.32	2.81	0.90	1.04
FECAL STREPTOCOCCI (LOG10(/100ML))	1.04	1.38	2.84	2.79
FC/FS RATIO	19.00	27.00	0.01	0.02
BIOMASS MEASUREMENTS				
ATP (NG/L)	60.	< 60.	80.	70.
BIOMASS, PLANKTON (MG/CU M)	1.	6.	< 1.	2.
CHLOROPHYLL-A (UG/L)	2.4	2.5	13.1	12.6
CHLOROPHYLL-B (UG/L)	0.3	0.2	4.9	4.9
CHLOROPHYLL-C (UG/L)	< 0.1	0.1	0.5	0.6

Notes: Bacteriological data from grab samples taken at 0.3 meters.

All other data from depth integrated samples composited from individual grab samples taken at 1 meter intervals above the depth of 1% light transmittance (or 8 equally spaced intervals where this zone is >7 meters.

TABLE D-17a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-7[illegible]-C-0101) PHASE I, CYCLE [illegible]

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 9/27/78	STATION 02 9/27/78	STATION 03 9/27/78	STATION 04 9/27/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	--	--	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	1.49	1.34	1.63	0.90
FECAL STREPTOCOCCI (LOG10(/100ML))	1.63	1.30	1.40	1.40
FC/FS RATIO	0.72	1.10	1.72	0.32
BIOMASS MEASUREMENTS				
ATP (NG/L)	300.	100.	110.	90.
BIOMASS, PLANKTON (MG/CU M)	< 1.	< 1.	4.	4.
CHLOROPHYLL-A (UG/L)	12.0	12.0	11.0	11.0
CHLOROPHYLL-B (UG/L)	0.3	1.2	1.3	0.6
CHLOROPHYLL-C (UG/L)	< 0.1	0.7	0.5	0.1

PARAMETER NAME (UNITS)	STATION 05 9/27/78	STATION 06 9/27/78	STATION 07 9/27/78	STATION 08 9/27/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	7.65	9.27	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	2.06	2.09	1.41	--
FECAL STREPTOCOCCI (LOG10(/100ML))	1.45	1.89	1.17	--
FC/FS RATIO	4.07	1.60	1.73	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	160.	150.	90.	--
BIOMASS, PLANKTON (MG/CU M)	--.	5.	4.	--
CHLOROPHYLL-A (UG/L)	7.4	9.1	9.2	--
CHLOROPHYLL-B (UG/L)	0.4	2.1	0.3	--
CHLOROPHYLL-C (UG/L)	< 0.1	0.9	< 0.1	--

TABLE D-17b

PARAMETER NAME (UNITS)	STATION 08 9/26/78	STATION 09 9/26/78	STATION 10 9/26/78	STATION 10 9/26/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	4.39	--	3.12
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.60	<0.00	--	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	1.34	2.15	--	2.79
FC/FS RATIO	0.18	<1.00	--	<1.00
BIOMASS MEASUREMENTS				
ATP (NG/L)	160.	170.	--	140.
BIOMASS, PLANKTON (MG/CU M)	< 1.	1.	--	1.
CHLOROPHYLL-A (UG/L)	14.0	16.0	--	19.0
CHLOROPHYLL-B (UG/L)	1.3	0.2	--	1.0
CHLOROPHYLL-C (UG/L)	0.2	< 0.1	--	0.2

PARAMETER NAME (UNITS)	STATION 11 9/26/78	STATION 11 9/26/78	STATION 12 9/26/78	STATION 13 9/26/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	2.21	--	1.44	4.72
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.00	--	0.00	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	1.39	--	0.48	0.70
FC/FS RATIO	0.01	--	0.33	<1.00
BIOMASS MEASUREMENTS				
ATP (NG/L)	150.	--	230.	170.
BIOMASS, PLANKTON (MG/CU M)	2.	--	4.	< 1.
CHLOROPHYLL-A (UG/L)	22.0	--	2.4	29.0
CHLOROPHYLL-B (UG/L)	1.4	--	0.5	2.3
CHLOROPHYLL-C (UG/L)	< 0.1	--	0.3	0.8

TABLE D-17C

PARAMETER NAME (UNITS)	STATION 13 9/25/78	STATION 14 9/27/78	STATION 15 9/25/78	STATION 15 9/25/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	--	2.11	8.94	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	0.30	<0.00	--
FECAL STREPTOCOCCI (LOG10(/100ML))	--	<0.00	1.24	--
FC/FS RATIO	--	>1.00	<1.00	--
BIOMASS MEASUREMENTS				
ATP (NG/L)	--	100.	240.	--
BIOMASS, PLANKTON (MG/CU M)	--	4.	< 1.	--
CHLOROPHYLL-A (UG/L)	--	8.5	22.0	--
CHLOROPHYLL-B (UG/L)	--	0.5	2.8	--
CHLOROPHYLL-C (UG/L)	--	< 0.1	0.5	--

PARAMETER NAME (UNITS)	STATION 16 9/25/78	STATION 17 9/25/78	STATION 18 9/26/78	STATION 19 9/26/78
BIOLOGICAL DATA				
ALGAL GROWTH POTENTIAL				
ALGAL GROWTH POTENTIAL (MG/L)	23.90	--	3.25	--
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	--	0.90	<0.00	0.30
FECAL STREPTOCOCCI (LOG10(/100ML))	0.60	1.92	2.79	3.24
FC/FS RATIO	--	0.10	<1.00	<0.01
BIOMASS MEASUREMENTS				
ATP (NG/L)	80.	70.	140.	40.
BIOMASS, PLANKTON (MG/CU M)	< 1.	< 1.	3.	< 1.
CHLOROPHYLL-A (UG/L)	4.7	6.3	12.9	8.5
CHLOROPHYLL-B (UG/L)	0.4	0.7	1.0	1.1
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	0.1	< 0.1

Notes: Bacteriological data from grab samples taken at 0.3 meters.

All other data from depth integrated samples composited from individual grab samples taken at 1 meter intervals above the depth of 1% light transmittance (or 8 equally spaced intervals where this zone is >7 meters).

Algal Growth Potential results represent the mean of the 12-day and 14-day mean algal concentrations in the unspiked water.

TABLE D-18a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE [illegible]

WATER QUALITY SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 11/29/78	STATION 02 11/29/78	STATION 03 11/29/78	STATION 04 11/29/78
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
ATP (NG/L)	80.	80.	50.	60.
BIOMASS, PLANKTON (MG/CU M)	3.	2.	3.	3.
CHLOROPHYLL-A (UG/L)	6.0	5.5	5.9	6.5
CHLOROPHYLL-B (UG/L)	1.3	0.5	2.7	1.7
CHLOROPHYLL-C (UG/L)	0.2	< 0.1	1.1	0.3

PARAMETER NAME (UNITS)	STATION 05 11/29/78	STATION 06 11/29/78	STATION 07 11/30/78	STATION 07 11/30/78
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
ATP (NG/L)	70.	90.	90.	--
BIOMASS, PLANKTON (MG/CU M)	4.	3.	4.	--
CHLOROPHYLL-A (UG/L)	6.2	7.4	7.4	--
CHLOROPHYLL-B (UG/L)	1.5	1.1	1.6	--
CHLOROPHYLL-C (UG/L)	0.8	0.9	0.3	--

PARAMETER NAME (UNITS)	STATION 08 11/30/78	STATION 09 11/29/78	STATION 07 11/29/78	STATION 10 11/28/78
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
ATP (NG/L)	100.	130.	--	110.
BIOMASS, PLANKTON (MG/CU M)	4.	2.	--	3.
CHLOROPHYLL-A (UG/L)	7.1	10.5	--	11.5
CHLOROPHYLL-B (UG/L)	0.5	3.1	--	1.4
CHLOROPHYLL-C (UG/L)	< 0.1	1.3	--	0.9

TABLE D-18b

PARAMETER NAME (UNITS)	STATION 14 11/30/78	STATION 15 11/28/78	STATION 15 11/29/78	STATION 16 11/28/78
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
ATP (NG/L)	130.	100.	--	40.
BIOMASS, PLANKTON (MG/CU M)	0.	1.	--	1.
CHLOROPHYLL-A (UG/L)	9.1	13.5	--	1.2
CHLOROPHYLL-B (UG/L)	2.5	2.2	--	0.5
CHLOROPHYLL-C (UG/L)	1.6	1.3	--	< 0.1

PARAMETER NAME (UNITS)	STATION 11 11/28/78	STATION 11 11/28/78	STATION 13 11/29/78	STATION 13 11/29/78
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
ATP (NG/L)	130.	--	140.	--
BIOMASS, PLANKTON (MG/CU M)	3.	--	2.	--
CHLOROPHYLL-A (UG/L)	13.8	--	12.5	--
CHLOROPHYLL-B (UG/L)	2.6	--	3.6	--
CHLOROPHYLL-C (UG/L)	0.6	--	0.9	--

PARAMETER NAME (UNITS)	STATION 17 11/28/78	STATION 18 11/30/78
BIOLOGICAL DATA		
BIOMASS MEASUREMENTS		
ATP (NG/L)	40.	120.
BIOMASS, PLANKTON (MG/CU M)	< 1.	2.
CHLOROPHYLL-A (UG/L)	1.1	8.4
CHLOROPHYLL-B (UG/L)	0.5	1.7
CHLOROPHYLL-C (UG/L)	< 0.1	0.8

Notes: Bacteriological data from grab samples taken at 0.3 meters.

All other data from depth integrated samples composited from individual grab samples taken at 1 meter intervals above the depth of 1% light transmittance (or 8 equally spaced intervals where this zone is >7 meters).

APPENDIX E

LABORATORY QUALITY CONTROL DATA

LIST OF TABLES

TABLE E-1a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I

DATA FROM DUPLICATE ANALYSES

PARAMETER NAME (UNITS)	STATION 1-A 4/17/78	STATION 1-B 4/17/78	STATION 2-A 4/18/78	STATION 2-B 4/18/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	55.	50.	50.	50.
TURBIDITY, HACH TURBIDIMETER (FTU)	25.00	26.00	23.00	24.00
TOTAL FILTERABLE RESIDUE (MG/L)	--	--	--	--
TOTAL NONFILTERABLE RESIDUE (MG/L)	10.	24.	--	--
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	14.	14.	16.	16.
SULFATE, DISSOLVED (MG SO4/L)	--	--	4.	4.
IRON, DISSOLVED (UG FE/L)	280	210	150	150
IRON, TOTAL (UG FE/L)	1750	1670	1620	1520
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	60	80	70	70
ZINC, TOTAL (UG ZN/L)	30	30	30	40
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 9.	< 8.	< 9.	< 7.
CARBON, TOTAL ORGANIC (MG C/L)	6.	6.	6.	6.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.09	0.09	0.11	0.11
NITROGEN, NITRATE+NITRITE (MG N/L)	0.23	0.22	0.27	0.27
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	--	--	--	--
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
BIOMASS, PLANKTON (GM/CU M)	2.	11.	--	--
CHLOROPHYLL-A (UG/L)	8.4	8.1	7.6	5.2
CHLOROPHYLL-B (UG/L)	2.6	1.3	1.0	1.7
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	< 0.1

TABLE E-1b

PARAMETER NAME (UNITS)	STATION 8-A 4/19/78	STATION 8-B 4/19/78	STATION 11-A 4/20/78	STATION 11-B 4/20/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	50.	55.	50.	50.
TURBIDITY, HACH TURBIDIMETER (FTU)	29.00	29.00	26.00	26.00
TOTAL FILTERABLE RESIDUE (MG/L)	58.	54.	64.	73.
TOTAL NONFILTERABLE RESIDUE (MG/L)	--	--	--	--
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	17.	19.	23.	23.
SULFATE, DISSOLVED (MG SO4/L)	--	--	4.	5.
IRON, DISSOLVED (UG FE/L)	190	190	170	210
IRON, TOTAL (UG FE/L)	2160	2100	1770	1780
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	90	90	80	80
ZINC, TOTAL (UG ZN/L)	30	30	30	30
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 7.	7.	7.	7.
CARBON, TOTAL ORGANIC (MG C/L)	6.	7.	7.	7.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.10	0.10	0.06	0.07
NITROGEN, NITRATE+NITRITE (MG N/L)	0.27	0.27	0.27	0.27
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.01	0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	--	--	0.08	0.08
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
BIOMASS, PLANKTON (GM/CU M)	--	--	4.	3.
CHLOROPHYLL-A (UG/L)	3.8	3.4	5.8	5.4
CHLOROPHYLL-B (UG/L)	0.2	0.3	0.3	0.2
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	< 0.1

TABLE E-1c

PARAMETER NAME (UNITS)	STATION 15-A 4/21/78	STATION 15-B 4/21/78
PHYSICAL DATA		
LABORATORY DATA		
COLOR (PT-CO UNITS)	60.	60.
TURBIDITY, HACH TURBIDIMETER (FTU)	13.00	13.00
TOTAL FILTERABLE RESIDUE (MG/L)	--	--
TOTAL NONFILTERABLE RESIDUE (MG/L)	3.	9.
CHEMICAL DATA		
MINERALS AND METALS		
ALKALINITY, TOTAL (MG CACO3/L)	32.	32.
SULFATE, DISSOLVED (MG SO4/L)	--	--
IRON, DISSOLVED (UG FE/L)	380	370
IRON, TOTAL (UG FE/L)	1370	1410
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	70	70
ZINC, TOTAL (UG ZN/L)	20	10
NUTRIENTS		
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	< 8.
CARBON, TOTAL ORGANIC (MG C/L)	6.	6.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.12	0.09
NITROGEN, NITRATE+NITRITE (MG N/L)	0.32	0.32
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.03	0.03
PHOSPHORUS, TOTAL (MG P/L)	0.08	0.08
BIOLOGICAL DATA		
BIOMASS MEASUREMENTS		
BIOMASS, PLANKTON (GM/CU M)	--	--
CHLOROPHYLL-A (UG/L)	3.3	3.0
CHLOROPHYLL-B (UG/L)	< 0.1	0.3
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1

TABLE E-2a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

DATA FROM DUPLICATE ANALYSES

PARAMETER NAME (UNITS)	STATION 6-A 6/ 7/78	STATION 6-B 6/ 7/78	STATION 11-A 6/ 6/78	STATION 11-B 6/ 6/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	120.	120.	35.	35.
TURBIDITY, HACH TURBIDIMETER (FTU)	160.00	150.00	6.60	7.00
TOTAL FILTERABLE RESIDUE (MG/L)	101.	106.	81.	94.
TOTAL NONFILTERABLE RESIDUE (MG/L)	109.	129.	5.	4.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	17.	16.	51.	50.
SULFATE, DISSOLVED (MG SO4/L)	4.	4.	2.	2.
SULFIDE, TOTAL (MG S/L)	0.7	0.3	0.1	0.2
IRON, DISSOLVED (UG FE/L)	150	150	190	190
IRON, TOTAL (UG FE/L)	5010	5020	610	630
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	150	150	< 50	< 50
ZINC, TOTAL (UG ZN/L)	50	40	50	50
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	9.	12.	7.	7.
CARBON, TOTAL ORGANIC (MG C/L)	11.	12.	7.	8.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.10	0.09	0.05	0.06
NITROGEN, NITRATE+NITRITE (MG N/L)	0.40	0.36	0.36	0.36
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.06	0.06	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.35	0.34	0.08	0.10
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	<0.00	<0.00	--	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	0.57	0.59	--	--
BIOMASS MEASUREMENTS				
BIOMASS, PLANKTON (GM/CU M)	15.	27.	9.	7.
CHLOROPHYLL-A (UG/L)	4.0	3.9	9.6	8.4
CHLOROPHYLL-B (UG/L)	1.5	1.3	3.7	2.1
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	0.5	0.7

TABLE E-2b

PARAMETER NAME (UNITS)	STATION 17-A 6/ 5/78	STATION 17-B 6/ 5/78
PHYSICAL DATA		
LABORATORY DATA		
COLOR (PT-CO UNITS)	55.	50.
TURBIDITY, HACH TURBIDIMETER (FTU)	8.70	8.90
TOTAL FILTERABLE RESIDUE (MG/L)	93.	93.
TOTAL NONFILTERABLE RESIDUE (MG/L)	15.	19.
CHEMICAL DATA		
MINERALS AND METALS		
ALKALINITY, TOTAL (MG CACO3/L)	49.	50.
SULFATE, DISSOLVED (MG SO4/L)	2.	2.
SULFIDE, TOTAL (MG S/L)	0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	410	420
IRON, TOTAL (UG FE/L)	1110	1070
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	< 50
ZINC, TOTAL (UG ZN/L)	40	40
NUTRIENTS		
CARBON, DISSOLVED ORGANIC (MG C/L)	< 7.	6.
CARBON, TOTAL ORGANIC (MG C/L)	6.	6.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.08	0.10
NITROGEN, NITRATE+NITRITE (MG N/L)	0.58	0.58
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.02	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.13	0.11
BIOLOGICAL DATA		
BACTERIOLOGICAL DATA		
FECAL COLFORM (LOG10(/100ML))	0.54	0.53
FECAL STREPTOCOCCI (LOG10(/100ML))	0.30	0.45
BIOMASS MEASUREMENTS		
BIOMASS, PLANKTON (GM/CU M)	< 1.	--
CHLOROPHYLL-A (UG/L)	1.3	1.3
CHLOROPHYLL-B (UG/L)	0.3	0.3
CHLOROPHYLL-C (UG/L)	< 0.1	0.1

TABLE E-3a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-75-C-0101) PHASE I, CYCLE 3

DATA FROM DUPLICATE ANALYSES

PARAMETER NAME (UNITS)	STATION 6-A 7/20/78	STATION 6-B 7/20/78	STATION 12-A 7/19/78	STATION 12-B 7/19/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	55.	53.	14.	14.
TURBIDITY, HACH TURBIDIMETER (FTU)	19.00	16.00	0.83	0.95
TOTAL FILTERABLE RESIDUE (MG/L)	67.	62.	57.	59.
TOTAL NONFILTERABLE RESIDUE (MG/L)	10.	< 10.	16.	10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	21.	21.	32.	32.
SULFATE, DISSOLVED (MG SO4/L)	6.	6.	< 1.	< 1.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	70	80	< 50	< 50
IRON, TOTAL (UG FE/L)	510	790	80	110
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	70	70	< 50	< 50
ZINC, TOTAL (UG ZN/L)	30	30	20	10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 7.	5.	6.	7.
CARBON, TOTAL ORGANIC (MG C/L)	5.	6.	7.	8.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.06	0.05	0.03	0.04
NITROGEN, NITRATE+NITRITE (MG N/L)	<0.01	<0.01	0.10	0.11
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.07	0.09	0.02
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.44	0.44	<0.00	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	0.41	0.40	-0.16	--
BIOMASS MEASUREMENTS				
CHLOROPHYLL-A (UG/L)	7.9	7.7	2.0	2.3
CHLOROPHYLL-B (UG/L)	1.3	1.1	0.6	0.6
CHLOROPHYLL-C (UG/L)	< 0.1	0.1	0.3	0.5

TABLE E-3b

PARAMETER NAME (UNITS)	STATION 17-A 7/17/78	STATION 17-B 7/17/78	STATION 18-A 7/18/78	STATION 18-B 7/18/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	24.	24.	42.	36.
TURBIDITY, HACH TURBIDIMETER (FTU)	5.00	4.60	8.00	6.40
TOTAL FILTERABLE RESIDUE (MG/L)	82.	93.	87.	73.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 10.	< 10.	11.	14.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	57.	56.	42.	36.
SULFATE, DISSOLVED (MG SO4/L)	2.	2.	7.	7.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
IRON, DISSOLVED (UG FE/L)	70	60	< 50	< 50
IRON, TOTAL (UG FE/L)	390	620	980	740
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	< 50	170	170
ZINC, TOTAL (UG ZN/L)	20	30	20	30
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	4.	4.	4.	5.
CARBON, TOTAL ORGANIC (MG C/L)	5.	5.	5.	5.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.05	0.05	0.11	0.09
NITROGEN, NITRATE+NITRITE (MG N/L)	0.52	0.62	0.14	0.14
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.03	0.03	<0.01	0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.07	0.26	0.17
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.29	0.23	0.00	-0.72
FECAL STREPTOCOCCI (LOG10(/100ML))	0.20	0.19	0.47	0.47
BIOMASS MEASUREMENTS				
CHLOROPHYLL-A (UG/L)	3.2	3.0	8.2	8.0
CHLOROPHYLL-B (UG/L)	0.6	0.3	0.8	1.5
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	0.9	1.7

TABLE E-4a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

DATA FROM DUPLICATE ANALYSES

PARAMETER NAME (UNITS)	STATION 1-A 8/17/78	STATION 1-B 8/17/78	STATION 12-A 8/15/78	STATION 12-B 8/15/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	47.	47.	18.	17.
TURBIDITY, HACH TURBIDIMETER (FTU)	5.10	8.00	0.65	0.85
TOTAL FILTERABLE RESIDUE (MG/L)	66.	52.	61.	55.
TOTAL NONFILTERABLE RESIDUE (MG/L)	17.	11.	3.	4.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	19.	18.	32.	33.
CHLORIDE (MG CL/L)	4.	4.	3.	3.
SULFATE, DISSOLVED (MG SO4/L)	5.	5.	< 1.	< 1.
SULFIDE, TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM, TOTAL (MG CA/L)	0.1	0.1	2.5	2.5
IRON, DISSOLVED (UG FE/L)	90	90	< 50	< 50
IRON, TOTAL (UG FE/L)	890	670	80	110
MAGNESIUM, TOTAL (MG MG/L)	2.8	2.8	0.2	0.2
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	140	130	< 50	50
POTASSIUM, TOTAL (MG K/L)	1.6	1.6	< 0.1	< 0.1
SODIUM, TOTAL (MG NA/L)	4.33	4.40	1.17	1.13
ZINC, TOTAL (UG ZN/L)	30	20	10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 8.	< 8.	< 2.	< 2.
CARBON, TOTAL ORGANIC (MG C/L)	6.	5.	7.	7.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.09	0.10	0.03	<0.01
NITROGEN, NITRATE+NITRITE (MG N/L)	0.11	0.11	<0.01	<0.01
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.4	0.4
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.05	0.05	0.04	<0.01
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.25	0.20	<0.00	<0.00
FECAL STREPTOCOCCI (LOG10(/100ML))	0.28	0.24	<0.00	<0.00
BIOMASS MEASUREMENTS				
CHLOROPHYLL-A (UG/L)	9.6	9.7	1.8	1.8
CHLOROPHYLL-B (UG/L)	0.7	0.6	0.4	0.6
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1	< 0.1	0.1

TABLE E-4b

PARAMETER NAME (UNITS)	STATION 17-A 8/14/78	STATION 17-B 8/14/78	STATION 19-A 8/16/78	STATION 19-B 8/16/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	60.	60.	30.	29.
TURBIDITY. HACH TURBIDIMETER (FTU)	14.00	8.20	6.20	11.00
TOTAL FILTERABLE RESIDUE (MG/L)	64.	71.	51.	62.
TOTAL NONFILTERABLE RESIDUE (MG/L)	29.	25.	10.	11.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY. TOTAL (MG CACO3/L)	25.	25.	36.	39.
CHLORIDE (MG CL/L)	4.	4.	4.	4.
SULFATE. DISSOLVED (MG SO4/L)	2.	1.	4.	3.
SULFIDE. TOTAL (MG S/L)	< 0.1	< 0.1	< 0.1	< 0.1
CALCIUM. TOTAL (MG CA/L)	31.3	31.0	28.2	31.3
IRON. DISSOLVED (UG FE/L)	440	400	< 50	< 50
IRON. TOTAL (UG FE/L)	1910	2180	580	730
MAGNESIUM. TOTAL (MG MG/L)	1.9	1.3	2.8	2.9
MANGANESE. DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE. TOTAL (UG MN/L)	270	240	80	130
POTASSIUM. TOTAL (MG K/L)	1.1	1.2	1.1	1.1
SODIUM. TOTAL (MG NA/L)	3.27	3.33	3.60	3.57
ZINC. TOTAL (UG ZN/L)	30	30	20	30
NUTRIENTS				
CARBON. DISSOLVED ORGANIC (MG C/L)	< 9.	8.	< 6.	4.
CARBON. TOTAL ORGANIC (MG C/L)	8.	8.	6.	5.
NITROGEN. TOTAL AMMONIA (MG N/L)	0.03	<0.01	0.08	0.08
NITROGEN. NITRATE+NITRITE (MG N/L)	0.28	0.28	0.17	0.17
NITROGEN. TOTAL KJELDAHL (MG N/L)	0.5	0.5	0.5	0.6
ORTHOPHOSPHATE. DISSOLVED (MG P/L)	0.03	0.03	<0.01	<0.01
PHOSPHORUS. TOTAL (MG P/L)	0.08	0.10	0.04	0.04
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.45	0.45	-0.11	0.08
FECAL STREPTOCOCCI (LOG10(/100ML))	0.14	0.13	0.45	0.44
BIOMASS MEASUREMENTS				
CHLOROPHYLL-A (UG/L)	2.5	2.5	13.1	12.0
CHLOROPHYLL-B (UG/L)	0.2	0.2	4.9	4.8
CHLOROPHYLL-C (UG/L)	0.1	< 0.1	0.5	0.7

TABLE E-5a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

DATA FROM DUPLICATE ANALYSES

PARAMETER NAME (UNITS)	STATION 14-A 9/27/78	STATION 14-B 9/27/78	STATION 17-A 9/25/78	STATION 17-B 9/25/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	9.	11.	14.	13.
TURBIDITY, HACH TURBIDIMETER (FTU)	5.60	5.00	1.50	1.60
TOTAL FILTRABLE RESIDUE (MG/L)	123.	113.	94.	88.
TOTAL NONFILTERABLE RESIDUE (MG/L)	7.	8.	2.	< 2.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	95.	91.	51.	53.
SULFATE, TOTAL (MG SO4/L)	< 1.	< 1.	3.	3.
IRON, DISSOLVED (UG FE/L)	< 50	< 50	< 50	< 50
IRON, TOTAL (UG FE/L)	140	160	150	140
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	< 50	60	< 50	< 50
ZINC, TOTAL (UG ZN/L)	20	20	10	20
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 19.	10.	< 2.	< 2.
CARBON, TOTAL ORGANIC (MG C/L)	16.	16.	2.	1.
NITROGEN, TOTAL AMMONIA (MG N/L)	<0.01	<0.01	0.03	0.04
NITROGEN, NITRATE+NITRITE (MG N/L)	0.35	0.35	0.53	0.53
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.2	0.3	0.3	0.5
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	<0.01	0.07	0.07
PHOSPHORUS, TOTAL (MG P/L)	0.01	<0.01	0.09	0.09
BIOLOGICAL DATA				
BACTERIOLOGICAL DATA				
FECAL COLIFORM (LOG10(/100ML))	0.00	0.30	0.95	0.85
FECAL STREPTOCOCCI (LOG10(/100ML))	<0.00	<0.00	1.71	2.04
BIOMASS MEASUREMENTS				
CHLOROPHYLL-A (UG/L)	8.4	9.6	6.5	6.0
CHLOROPHYLL-B (UG/L)	0.4	0.7	1.1	0.6
CHLOROPHYLL-C (UG/L)	0.1	< 0.1	0.1	< 0.1

TABLE E-5b

PARAMETER NAME (UNITS)	STATION 19-A 9/26/78	STATION 19-B 9/26/78
PHYSICAL DATA		
LABORATORY DATA		
COLOR (PT-CO UNITS)	20.	18.
TURBIDITY, HACH TURBIDIMETER (FTU)	6.10	6.20
TOTAL FILTERABLE RESIDUE (MG/L)	77.	83.
TOTAL NONFILTERABLE RESIDUE (MG/L)	5.	11.
CHEMICAL DATA		
MINERALS AND METALS		
ALKALINITY, TOTAL (MG CACO3/L)	42.	44.
SULFATE, TOTAL (MG SO4/L)	5.	4.
IRON, DISSOLVED (UG FE/L)	< 50	< 50
IRON, TOTAL (UG FE/L)	250	240
MANGANESE, DISSOLVED (UG MN/L)	< 50	< 50
MANGANESE, TOTAL (UG MN/L)	120	140
ZINC, TOTAL (UG ZN/L)	10	10
NUTRIENTS		
CARBON, DISSOLVED ORGANIC (MG C/L)	5.	4.
CARBON, TOTAL ORGANIC (MG C/L)	7.	6.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.04	0.09
NITROGEN, NITRATE+NITRITE (MG N/L)	0.09	0.08
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.5	0.6
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	0.03	0.02
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.04
BIOLOGICAL DATA		
BACTERIOLOGICAL DATA		
FECAL COLIFORM (LOG10(/100ML))	0.30	0.30
FECAL STREPTOCOCCI (LOG10(/100ML))	3.26	3.23
BIOMASS MEASUREMENTS		
CHLOROPHYLL-A (UG/L)	8.4	8.5
CHLOROPHYLL-B (UG/L)	0.9	1.3
CHLOROPHYLL-C (UG/L)	0.1	0.1

TABLE E-6a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 6

DATA FROM DUPLICATE ANALYSES

PARAMETER NAME (UNITS)	STATION 75-A 11/30/78	STATION 75-B 11/30/78	STATION 95-A 11/29/78	STATION 95-B 11/29/78
PHYSICAL DATA				
LABORATORY DATA				
COLOR (PT-CO UNITS)	65.	60.	50.	45.
TURBIDITY, HACH TURBIDIMETER (FTU)	10.00	9.50	10.00	6.10
TOTAL FILTERABLE RESIDUE (MG/L)	90.	86.	75.	79.
TOTAL NONFILTERABLE RESIDUE (MG/L)	9.	< 0.	21.	10.
CHEMICAL DATA				
MINERALS AND METALS				
ALKALINITY, TOTAL (MG CACO3/L)	26.	32.	32.	31.
CHLORIDE (MG CL/L)	4.	6.	4.	4.
SULFATE, DISSOLVED (MG SO4/L)	13.	13.	11.	11.
CALCIUM, TOTAL (MG CA/L)	6.0	5.7	5.9	5.9
IRON, DISSOLVED (UG FE/L)	70	80	130	90
IRON, TOTAL (UG FE/L)	970	770	650	630
MAGNESIUM, TOTAL (MG MG/L)	1.3	1.3	1.2	1.2
MANGANESE, DISSOLVED (UG MN/L)	110	110	50	< 50
MANGANESE, TOTAL (UG MN/L)	150	150	90	90
POTASSIUM, TOTAL (MG K/L)	2.7	2.8	2.5	2.5
SODIUM, TOTAL (MG NA/L)	12.40	12.50	10.40	6.80
ZINC, TOTAL (UG ZN/L)	10	< 10	< 10	< 10
NUTRIENTS				
CARBON, DISSOLVED ORGANIC (MG C/L)	< 12.	< 11.	6.	6.
CARBON, TOTAL ORGANIC (MG C/L)	9.	8.	7.	7.
NITROGEN, TOTAL AMMONIA (MG N/L)	0.02	0.02	0.07	0.07
NITROGEN, NITRATE+NITRITE (MG N/L)	0.26	0.28	0.25	0.27
NITROGEN, TOTAL KJELDAHL (MG N/L)	0.6	0.6	0.3	0.4
ORTHOPHOSPHATE, DISSOLVED (MG P/L)	<0.01	0.04	<0.01	<0.01
PHOSPHORUS, TOTAL (MG P/L)	0.04	0.05	0.03	0.05
BIOLOGICAL DATA				
BIOMASS MEASUREMENTS				
CHLOROPHYLL-A (UG/L)	7.6	7.2	10.5	10.6
CHLOROPHYLL-B (UG/L)	2.1	1.1	3.8	2.4
CHLOROPHYLL-C (UG/L)	0.3	0.3	1.6	0.9

TABLE E-6b

PARAMETER NAME (UNITS)	STATION 17-A 11/28/78	STATION 17-B 11/28/78
PHYSICAL DATA		
LABORATORY DATA		
COLOR (PT-CO UNITS)	18.	21.
TURBIDITY. HACH TURBIDIMETER (FTU)	3.50	4.90
TOTAL FILTERABLE RESIDUE (MG/L)	91.	90.
TOTAL NONFILTERABLE RESIDUE (MG/L)	< 2.	< 0.
CHEMICAL DATA		
MINERALS AND METALS		
ALKALINITY. TOTAL (MG CACO3/L)	57.	52.
CHLORIDE (MG CL/L)	6.	6.
SULFATE. DISSOLVED (MG SO4/L)	2.	2.
CALCIUM. TOTAL (MG CA/L)	17.0	15.7
IRON. DISSOLVED (UG FE/L)	260	250
IRON. TOTAL (UG FE/L)	440	540
MAGNESIUM. TOTAL (MG MG/L)	0.9	0.9
MANGANESE. DISSOLVED (UG MN/L)	< 50	< 50
MANGANESE. TOTAL (UG MN/L)	< 50	< 50
POTASSIUM. TOTAL (MG K/L)	1.0	1.0
SODIUM. TOTAL (MG NA/L)	4.33	4.47
ZINC. TOTAL (UG ZN/L)	< 10	< 10
NUTRIENTS		
CARBON. DISSOLVED ORGANIC (MG C/L)	4.	3.
CARBON. TOTAL ORGANIC (MG C/L)	4.	5.
NITROGEN. TOTAL AMMONIA (MG N/L)	0.04	0.02
NITROGEN. NITRATE+NITRITE (MG N/L)	0.60	0.56
NITROGEN. TOTAL KJELDAHL (MG N/L)	0.2	0.2
ORTHOPHOSPHATE. DISSOLVED (MG P/L)	0.05	0.06
PHOSPHORUS. TOTAL (MG P/L)	0.08	0.09
BIOLOGICAL DATA		
BIOMASS MEASUREMENTS		
CHLOROPHYLL-A (UG/L)	0.9	1.3
CHLOROPHYLL-B (UG/L)	0.3	0.6
CHLOROPHYLL-C (UG/L)	< 0.1	< 0.1

TABLE E-7

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101)
Phase I, Cycle 1

SPIKED SAMPLE RECOVERIES

Parameter	Station Number	Spike Value	Analytical Results		
			Sample	Spiked Sample	% Recovery
Zinc, Total (mg Zn/l)	08	0.06	0.03	0.09	96.5
	11	0.06	0.03	0.09	104
	15	0.04	0.01	0.05	102
Iron, Dissolved (mg Fe/l)	02	0.30	0.15	0.49	109
	08	0.35	0.19	0.56	104
	15	0.80	0.38	1.26	107
Iron, Total (mg Fe/l)	02	3.00	1.57	4.66	102
	11	3.00	1.77	4.65	97.2
	15	3.00	1.39	4.37	99.7
Manganese, Dissolved (mg Mn/l)	01	0.02	0.01	0.04	109
	08	0.04	0.02	0.06	100
	11	0.02	0.01	0.04	111
Manganese Total (mg Mn/l)	01	0.16	0.08	0.24	97.8
	02	0.16	0.07	0.22	98.5
	08	0.16	0.09	0.25	100

TABLE E-8

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101)
Phase I, Cycle 2

SPIKED SAMPLE RECOVERIES

Parameter	Station Number	Spike Value	Analytical Results		
			Sample	Spiked Sample	% Recovery
Zinc, (mg Zn/l)	13	0.05	0.02	0.06	88.2
	16	0.05	0.05	0.07	68.8*
Iron, Dissolved (mg Fe/l)	13	0.80	0.09	0.89	100
	16	0.80	0.26	1.05	98.9
Iron, Total (mg Fe/l)	13	2.50	0.35	2.43	85.1
	16	2.50	0.96	3.34	96.4
Manganese, Dissolved (mg Mn/l)	13	0.03	0.01	0.04	104
	16	0.03	0.02	0.05	111
Manganese, Total (mg Mn/l)	13	0.20	0.03	0.21	92.9
	16	0.10	0.04	0.14	104

*This sample was spiked in the laboratory resulting in:

16	0.02	0.05	0.07	100

The percent recoveries were calculated using the concentrations to three significant figures.

TABLE E-9

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101)

Phase I, Cycle 3

SPIKED SAMPLE RECOVERIES

Parameter	Station Number	Spike Value	Analytical Results		
			Sample	Spiked Sample	% Recovery
Zinc, Total (mg Zn/l)	15	0.05	0.02	0.07	109.1
	09	0.05	0.02	0.07	95.8
Iron, Dissolved (mg Fe/l)	15	0.40	<0.01	0.42	102.5
	09	0.40	0.10	0.52	104.0
Iron, Total (mg Fe/l)	15	2.50	0.08	2.45	95.1
	09	2.50	0.35	2.49	87.3
Manganese, Dissolved (mg Mn/l)	15	0.03	<0.01	0.04	115.2
	09	0.06	0.02	0.07	97.3
Manganese, Total (mg Mn/l)	15	0.10	0.05	0.17	112.5
	09	0.20	0.12	0.31	97.2

The percent recoveries were calculated using the concentrations to three significant figures.

TABLE E-10

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101)
Phase I, Cycle 4

SPIKED SAMPLE RECOVERIES

Parameter	Station Number	Spike Value	Analytical Results		
			Sample	Spiked Sample	% Recovery
Zinc, Total (mg Zn/l)	14	0.05	<0.01	0.06	107
	16	0.10	0.02	0.12	103
Iron, Dissolved (mg Fe/l)	14	0.08	0.20	0.26	90.2
	16	0.20	0.03	0.25	112
Iron, Total (mg Fe/l)	14	0.50	0.73	1.25	102
	16	0.40	1.25	1.48	89.3
Manganese, Dissolved (mg Mn/l)	14	0.03	0.01	0.05	109
	16	0.03	<0.01	0.04	104
Manganese, Total (mg Mn/l)	14	0.10	0.04	0.14	93.5
	16	0.10	0.09	0.19	102
Potassium, Total (mg K/l)	14	1.5	0.6	2.1	100
	16	1.5	1.1	2.7	103
Sodium Total (mg Na/l)	14	4.00	1.43	5.30	97.0
	16	4.00	3.27	7.07	95.0

The percent recoveries were calculated using the concentrations to three significant figures.

TABLE E-11

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101)
Phase I, Cycle 5

SPIKED SAMPLE RECOVERIES

Parameter	Station Number	Spike Value	Analytical Results		
			Sample	Spiked Sample	% Recovery
Zinc, Total (mg Zn/l)	07	0.10	0.01	0.11	103.7
	12	0.10	0.02	0.12	100.9
Iron, Dissolved (mg Fe/l)	07	0.20	0.04	0.24	100.4
	12	0.04	<0.01	0.04	97.7
Iron, Total (mg Fe/l)	07	1.0	0.29	1.18	91.5
	12	1.0	0.12	1.13	100.4
Manganese Dissolved (mg Mn/l)	07	0.03	0.08	0.11	100.0
	12	0.03	<0.01	0.04	100.0
Manganese, Total (mg Mn/l)	07	0.2	0.14	0.36	103.8
	12	0.1	0.11	0.23	106.5

The percent recoveries were calculated using the concentrations to three significant figures.

TABLE E-12

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101)
Phase I, Cycle 6

SPIKED SAMPLE RECOVERIES

Parameter	Station Number	Spike Value	Analytical Results		
			Sample	Spiked Sample	% Recovery
Zinc, Total (mg Zn/l)	03	0.05	<0.01	0.05	100
	09S-A	0.05	<0.01	0.05	100
Iron, Dissolved (mg Fe/l)	03	0.04	0.06	0.14	138
	09S	0.16	0.11	0.22	83.5
Iron, Total (mg Fe/l)	03	0.50	0.95	1.50	104
	09S-A	0.50	0.65	1.35	117
Manganese Dissolved (mg Mn/l)	03	0.06	<0.05	0.06	102
	09S	0.06	<0.05	0.11	99.1
Manganese, Total (mg Mn/l)	03	0.10	0.07	0.18	107
	09S-A	0.20	0.09	0.30	103

The percent recoveries were calculated using the concentrations to three significant digits.

APPENDIX F

IN SITU VERTICAL PROFILES AND ISOPLETHS

AD-A104 408 WATER AND AIR RESEARCH INC GAINESVILLE FL F/G 8/8
WATER QUALITY MANAGEMENT STUDIES LAKE SEMINOLE, APRIL-NOVEMBER --ETC(U)
SEP 81
UNCLASSIFIED ACF-80-10 DACW01-78-C-0101
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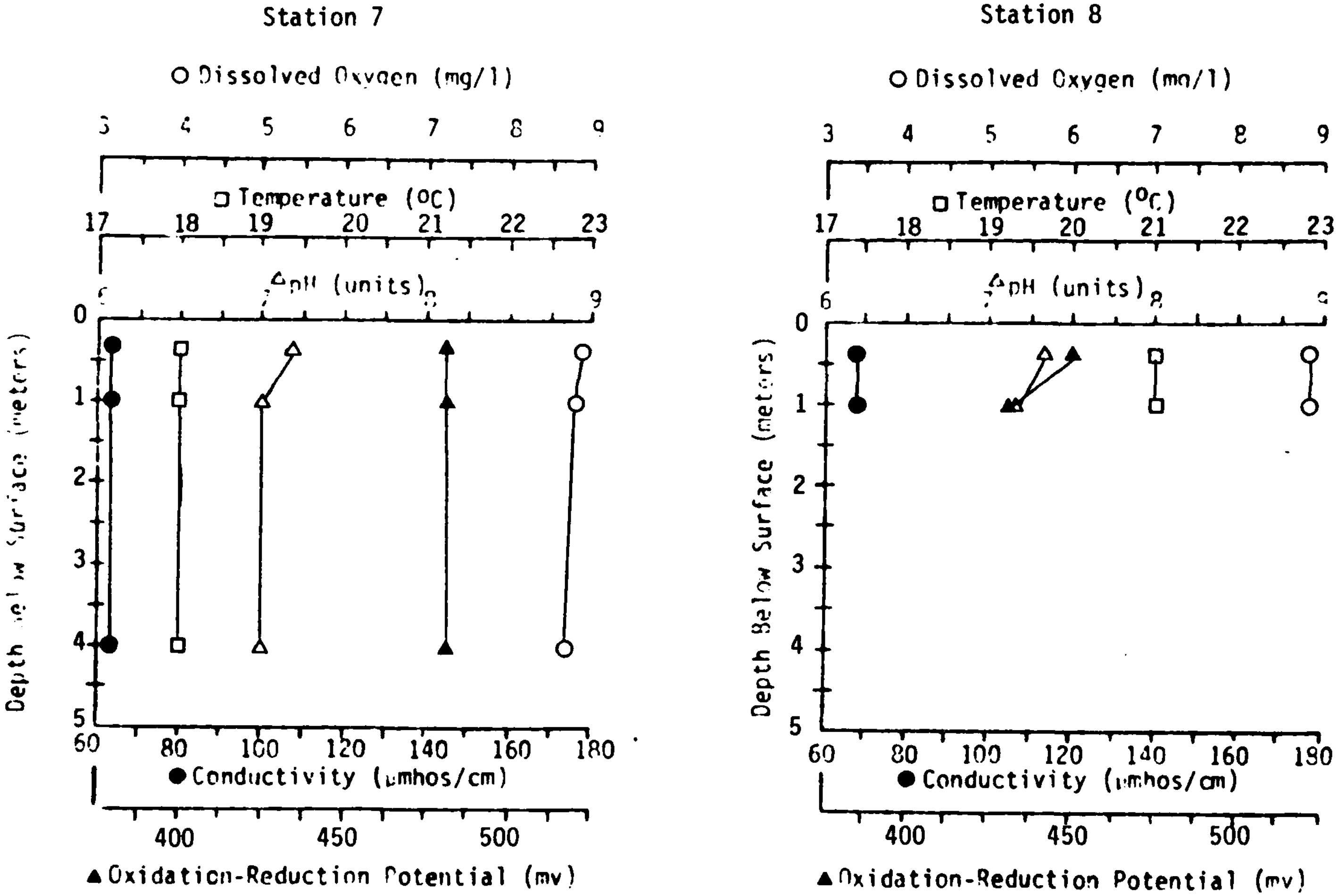
4 OF 6
AD
A104408

LIST OF FIGURES

FIGURE F-1a. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 1, APRIL 17-21, 1978.

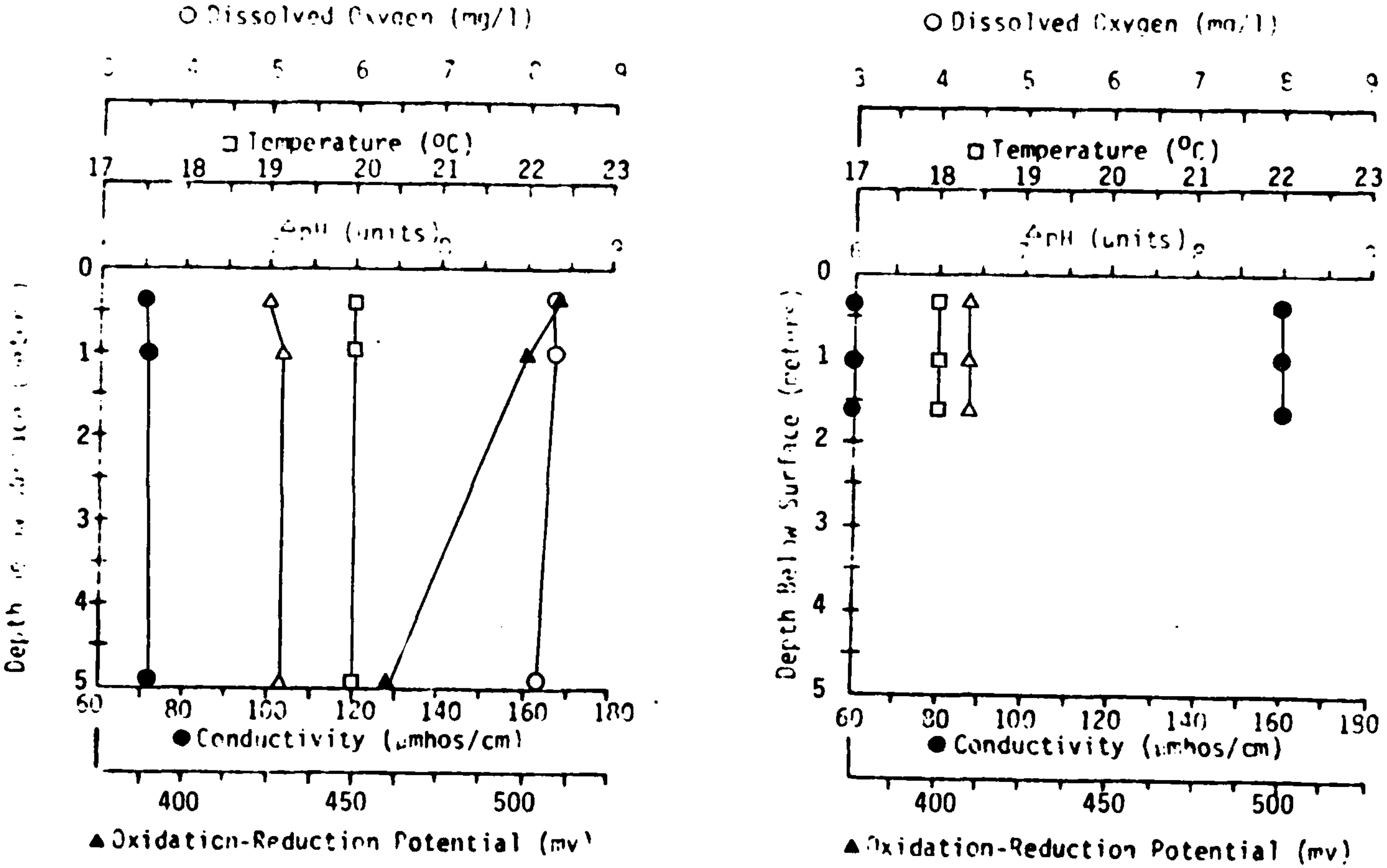


Station 7

Station 8

Unless otherwise noted, profiles taken at midpoint in cross section.

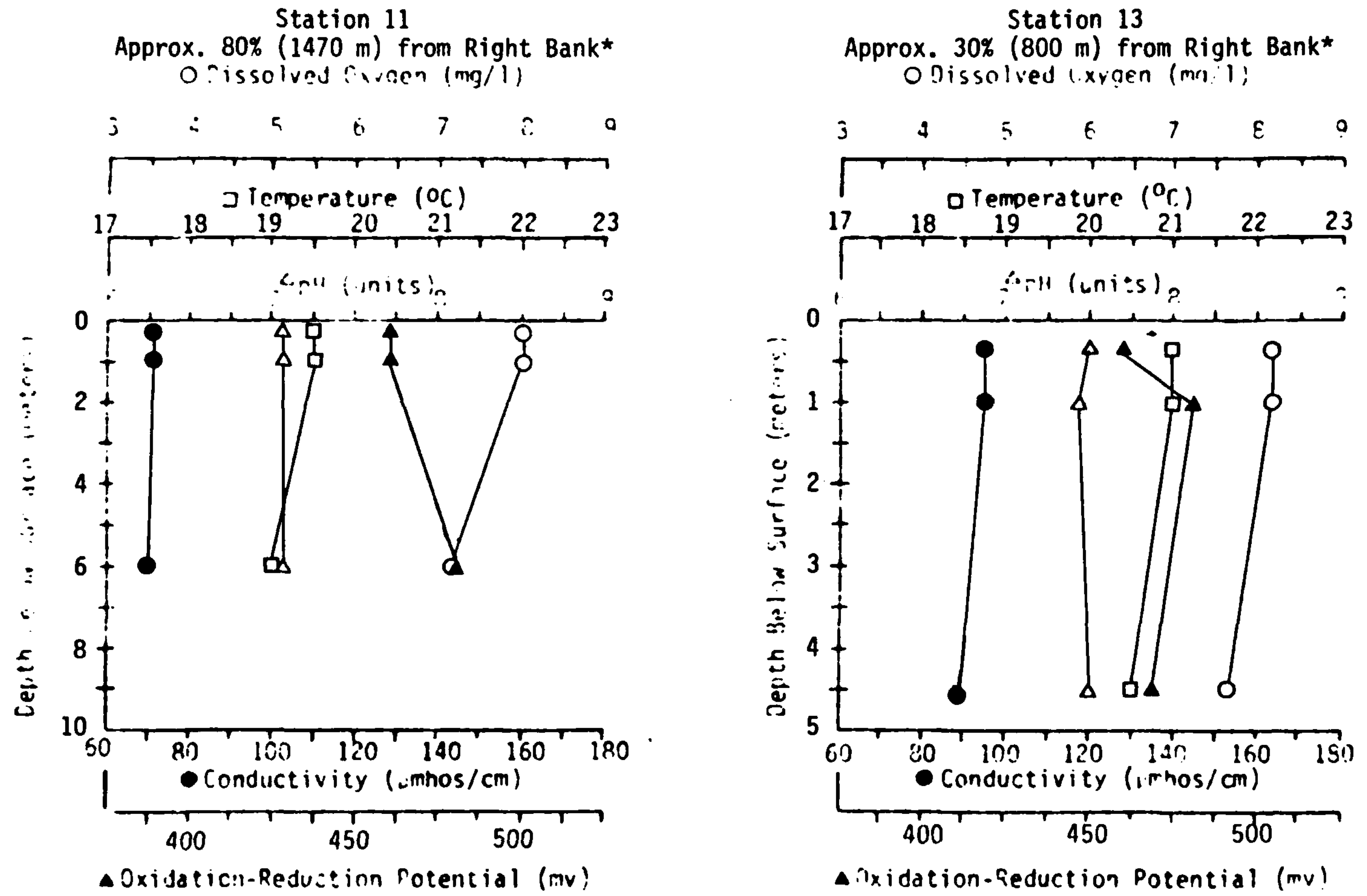
FIGURE F-1b. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 1, APRIL 17-21, 1978.


Station 9

Station 10

Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-1c. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 1, APRIL 17-21, 1978.



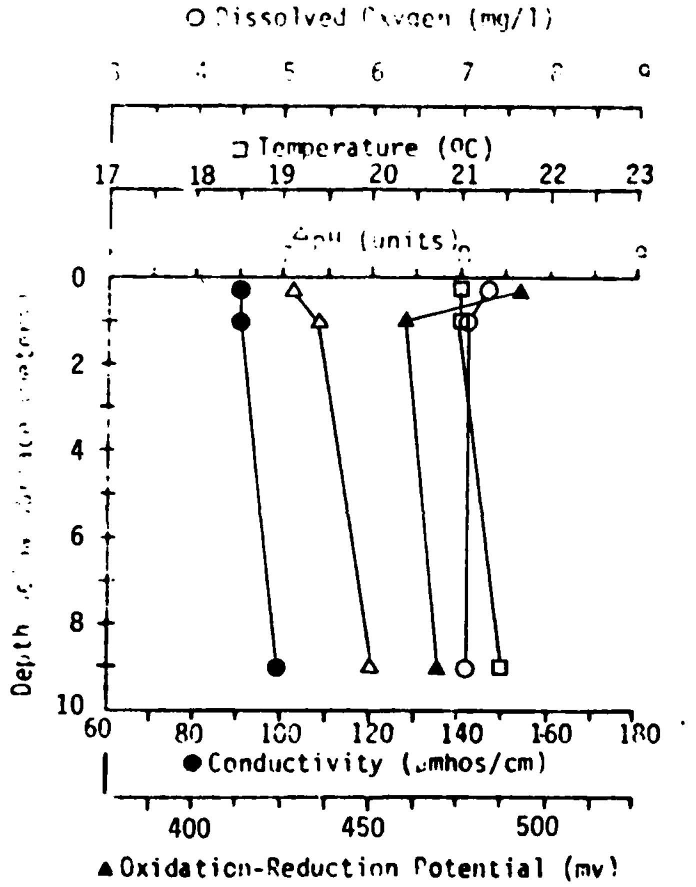
Station 11
Approx. 80% (1470 m) from Right Bank*

Station 13
Approx. 30% (800 m) from Right Bank*

*Distance from Right Bank Facing Upstream
Unless otherwise noted, profiles taken at midpoint in cross section.

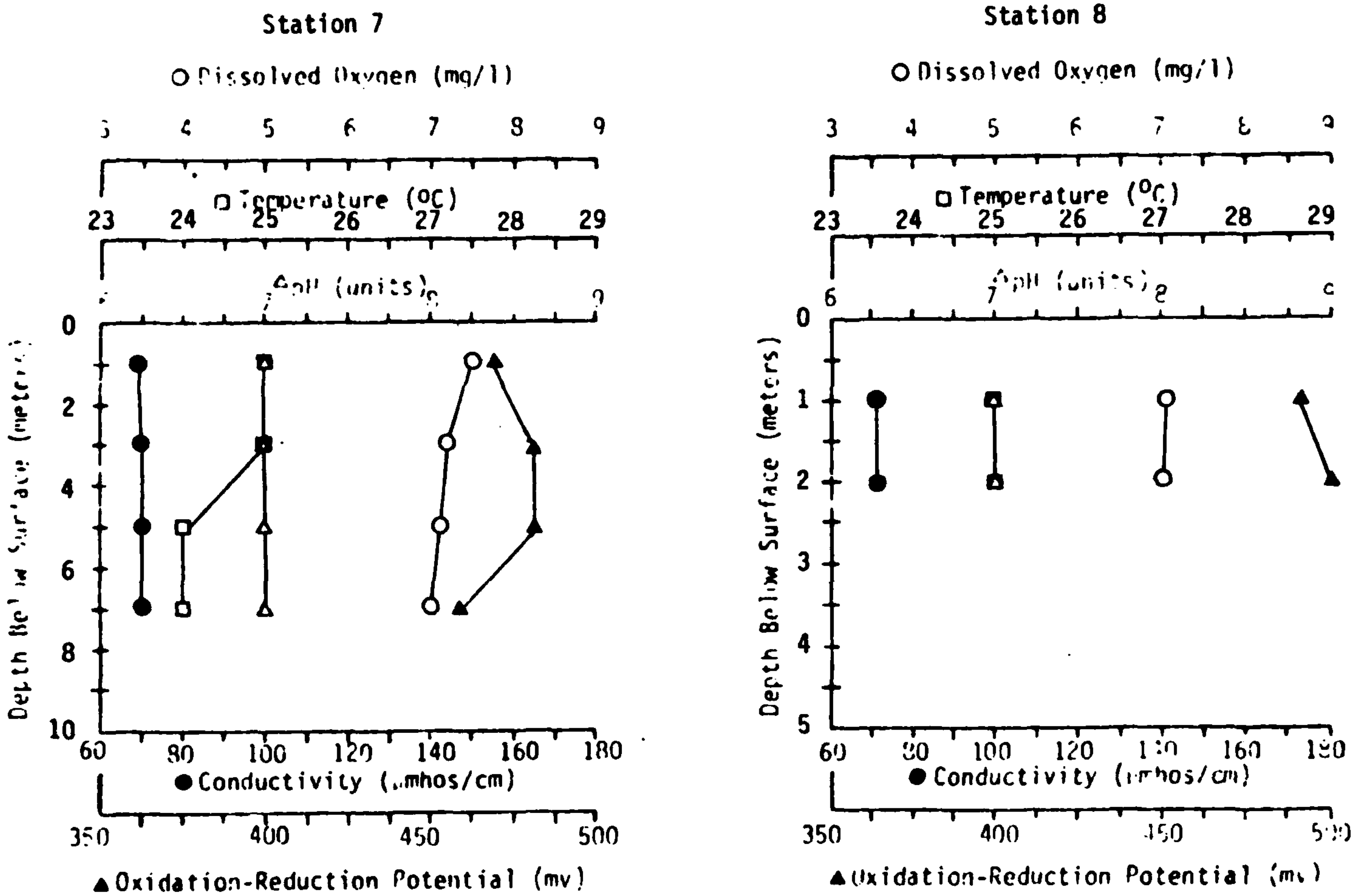
FIGURE F-1d. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 1, APRIL 17-21, 1978.

Station 15



Unless otherwise noted, profiles taken at midpoint in cross section.

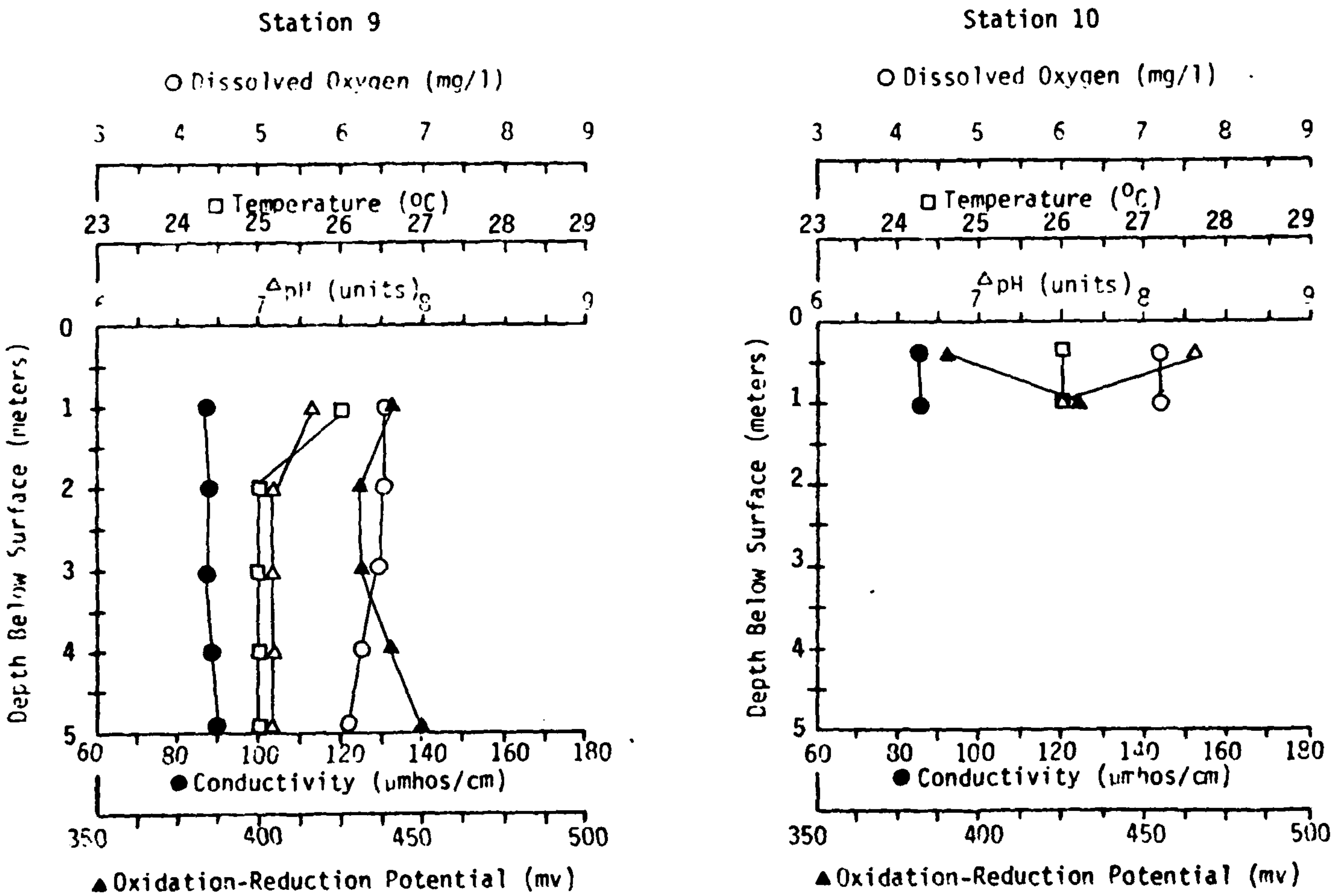
FIGURE F-2a. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 2, JUNE 5-7, 1978.


Station 7

Station 8

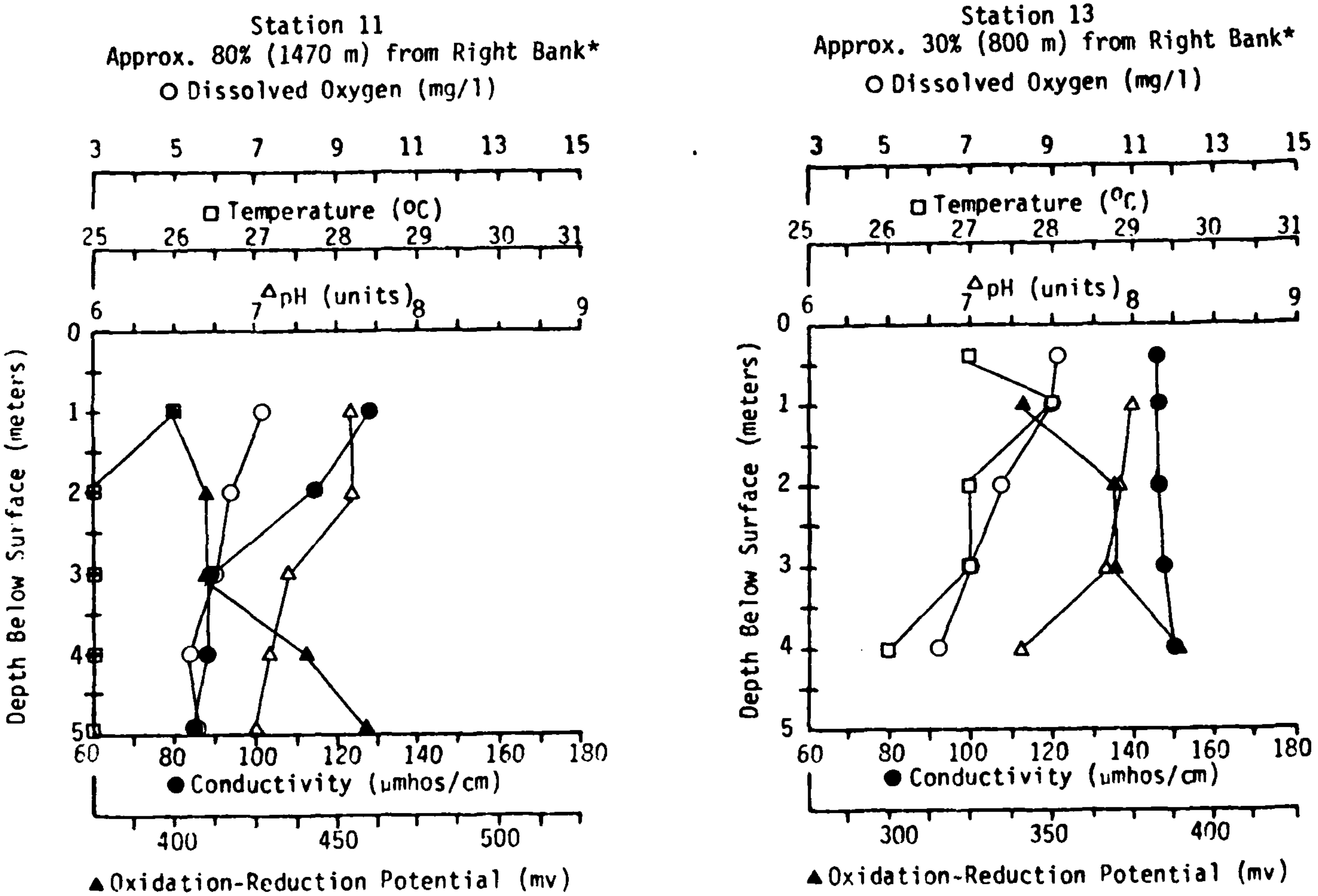
Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-2b. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 2, JUNE 5-7, 1978.



Unless otherwise noted, profiles taken at midpoint in cross section.

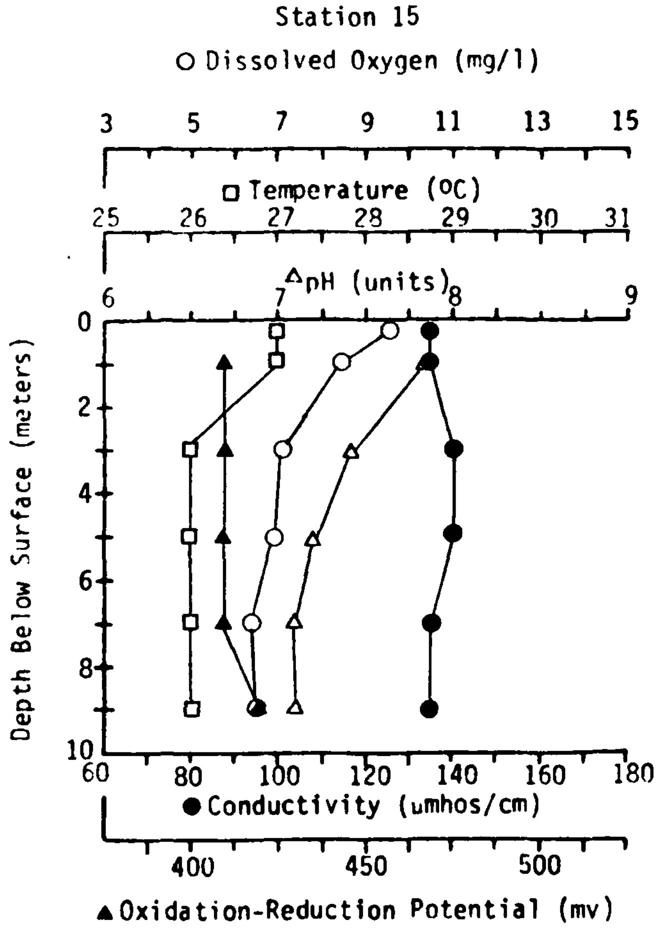
FIGURE F-2c. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 2, JUNE 5-7, 1978.


Station 11
Approx. 80% (1470 m) from Right Bank*

Station 13
Approx. 30% (800 m) from Right Bank*

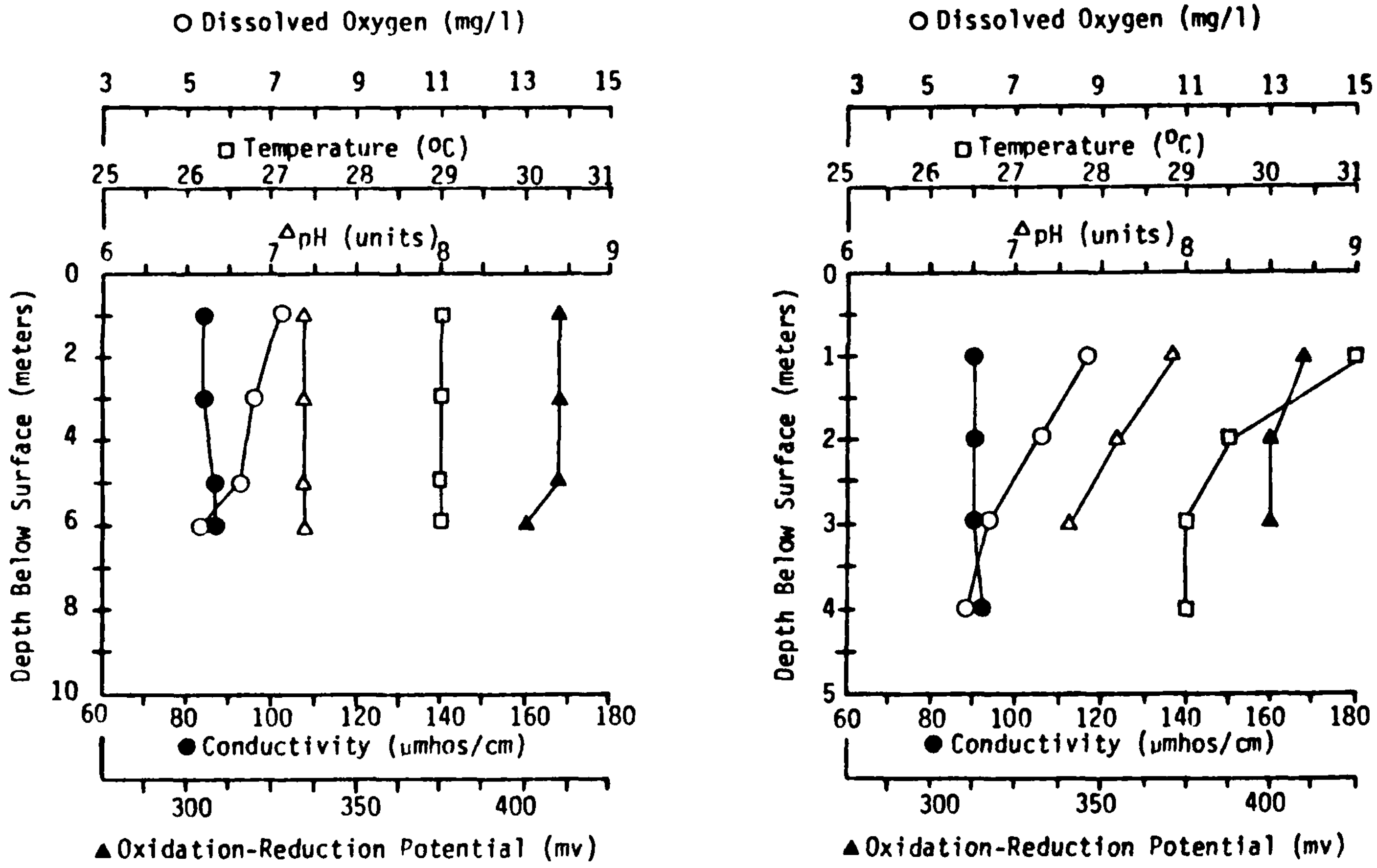
*Distance from Right Bank Facing Upstream
Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-2d. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 2, JUNE 5-7, 1978.



Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-3a. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 3, JULY 17-20, 1978.

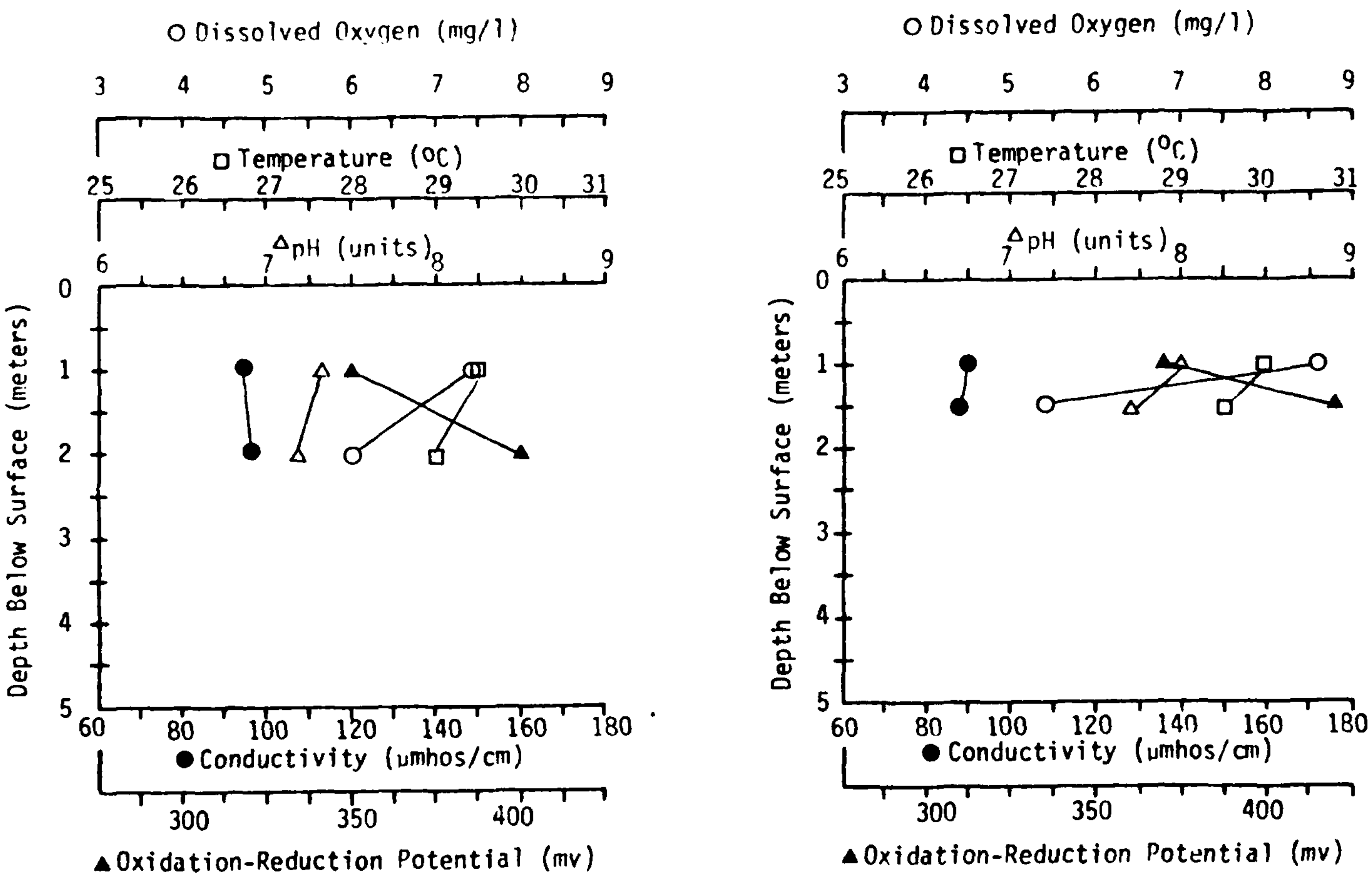


Station 7

Station 9

Unless otherwise noted, profiles taken at midpoint in cross section.

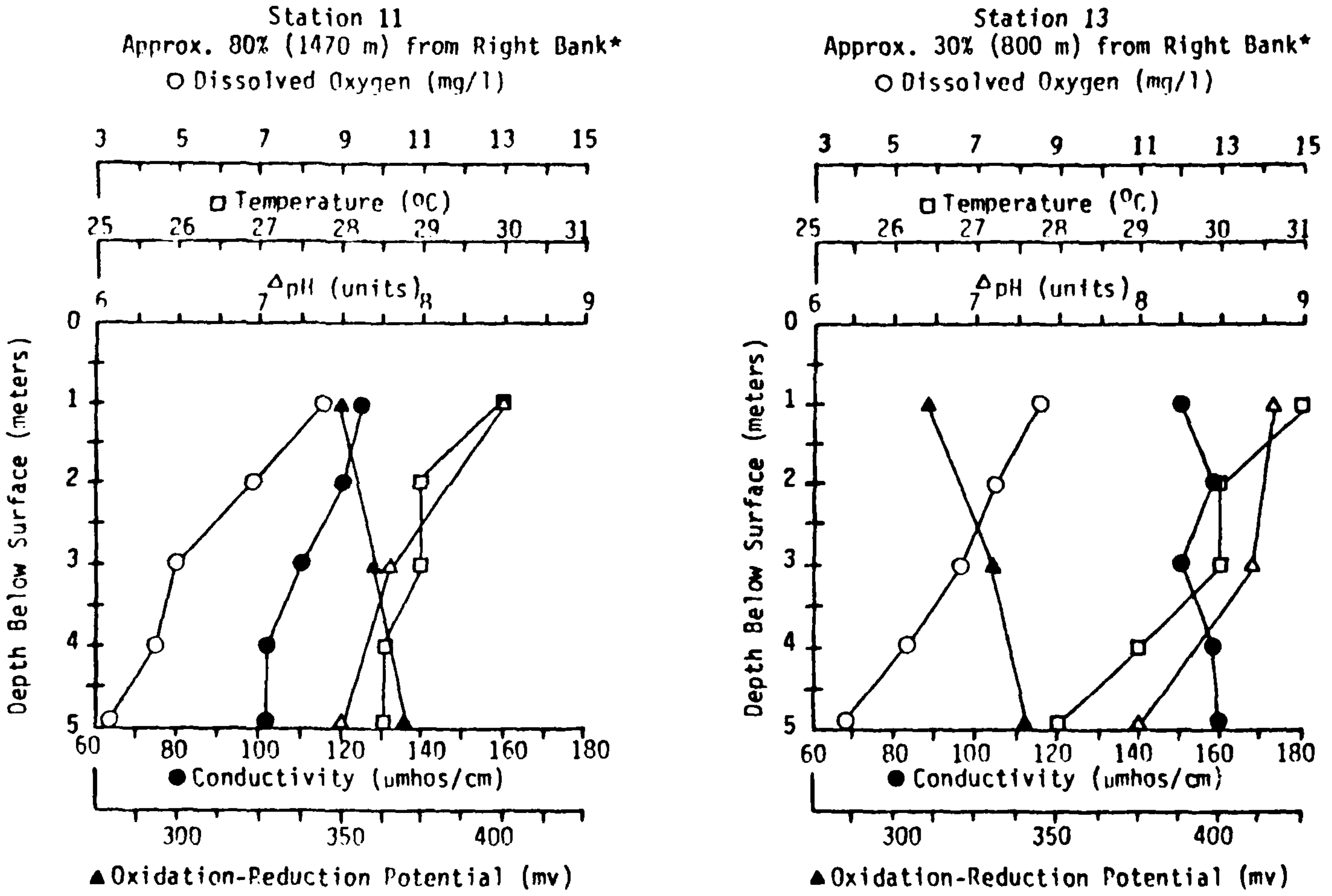
FIGURE F-3b. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN <u>IN SITU</u> CYCLE 3, JULY 17-20, 1978.


Station 8

Station 10

Unless otherwise noted, profiles taken at midpoint in cross section.

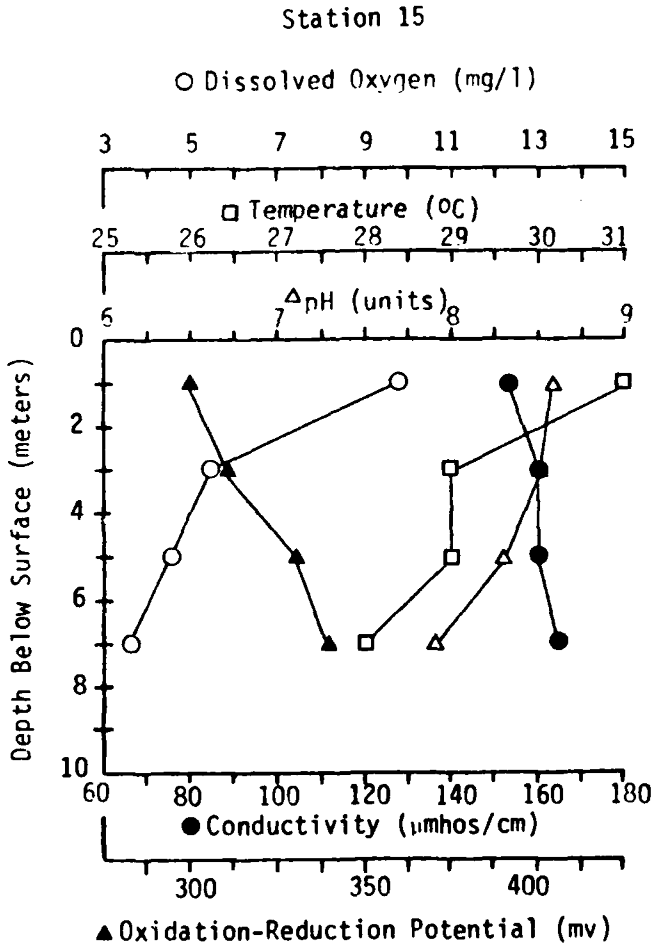
FIGURE F-3c. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN <u>IN SITU</u> CYCLE 3, JULY 17-20, 1978.


Station 11
Approx. 80% (1470 m) from Right Bank*

Station 13
Approx. 30% (800 m) from Right Bank*

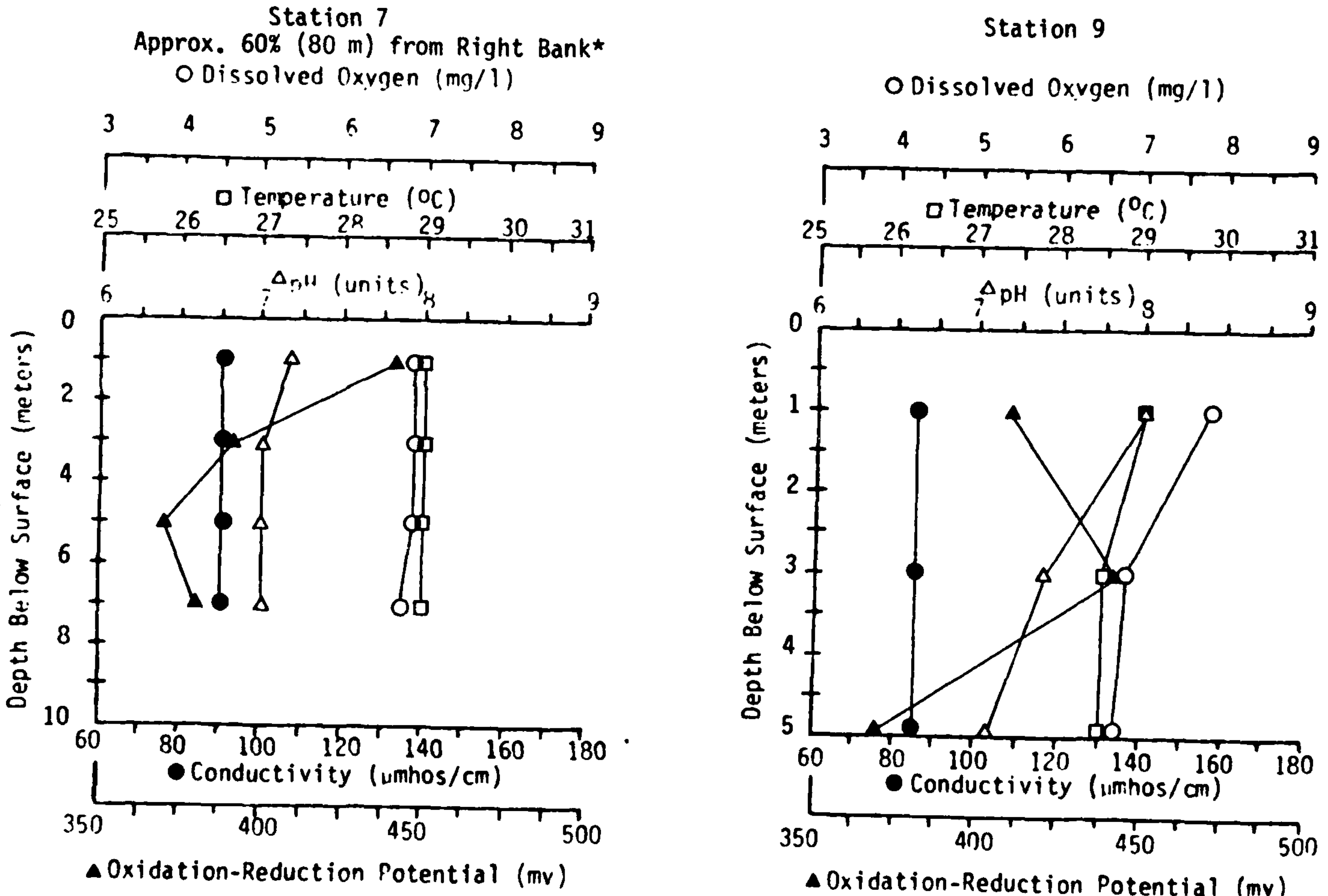
*Distance from Right Bank Facing Upstream
Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-3d. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 3, JULY 17-20, 1978.



Unless otherwise noted, profiles taken at midpoint in cross section.

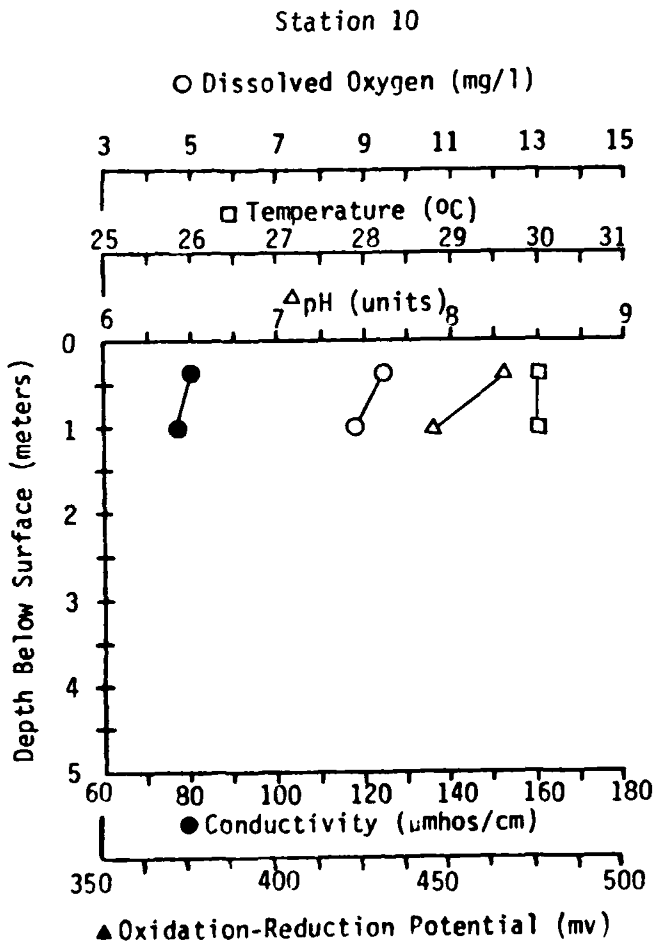
FIGURE F-4a. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN *IN SITU* CYCLE 4, AUGUST 14-17, 1978.



*Distance from Right Bank Facing Upstream

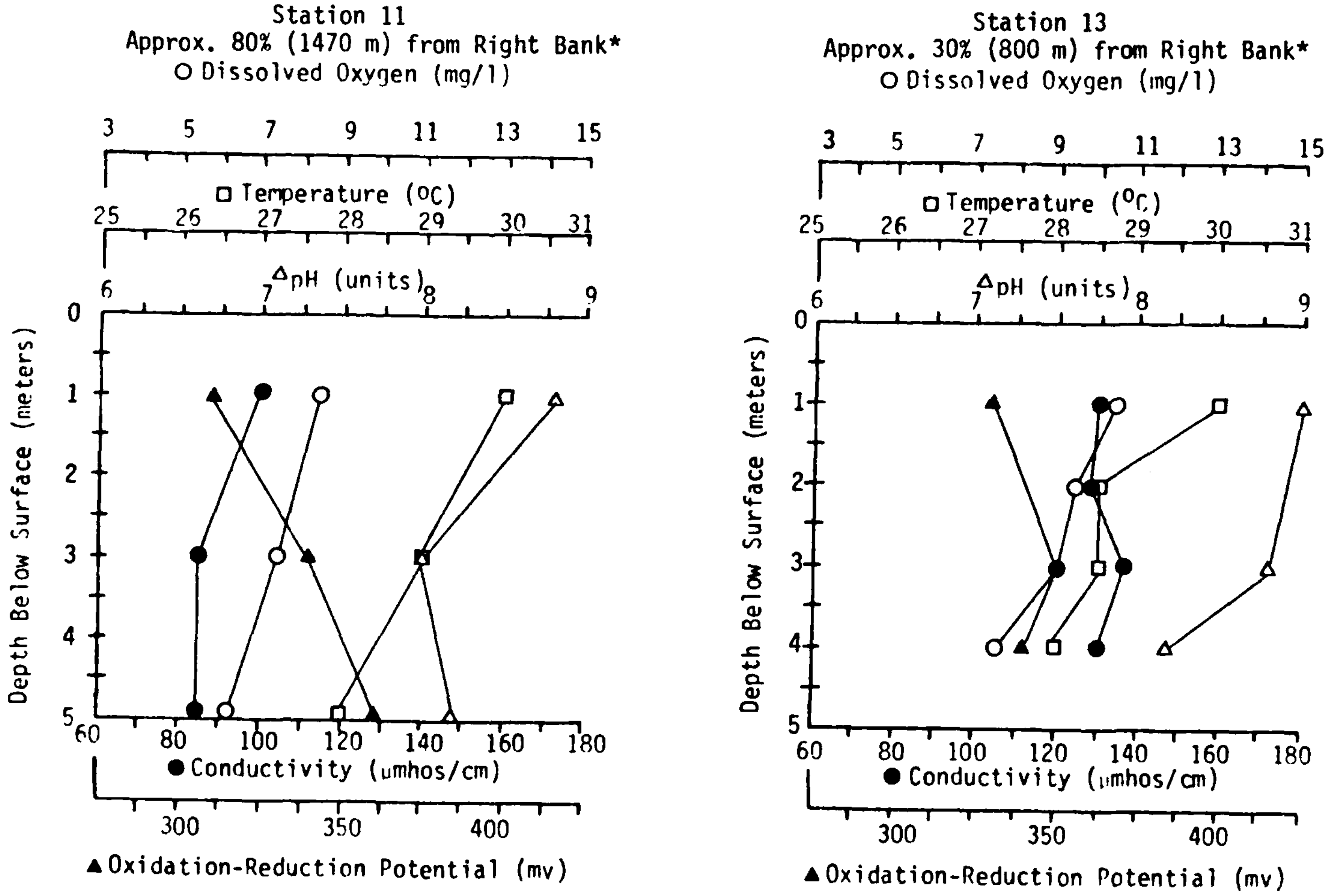
Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-4b. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN <u>IN SITU</u> CYCLE 4, AUGUST 14-17, 1978.



Unless otherwise noted, profiles taken at midpoint in cross section.

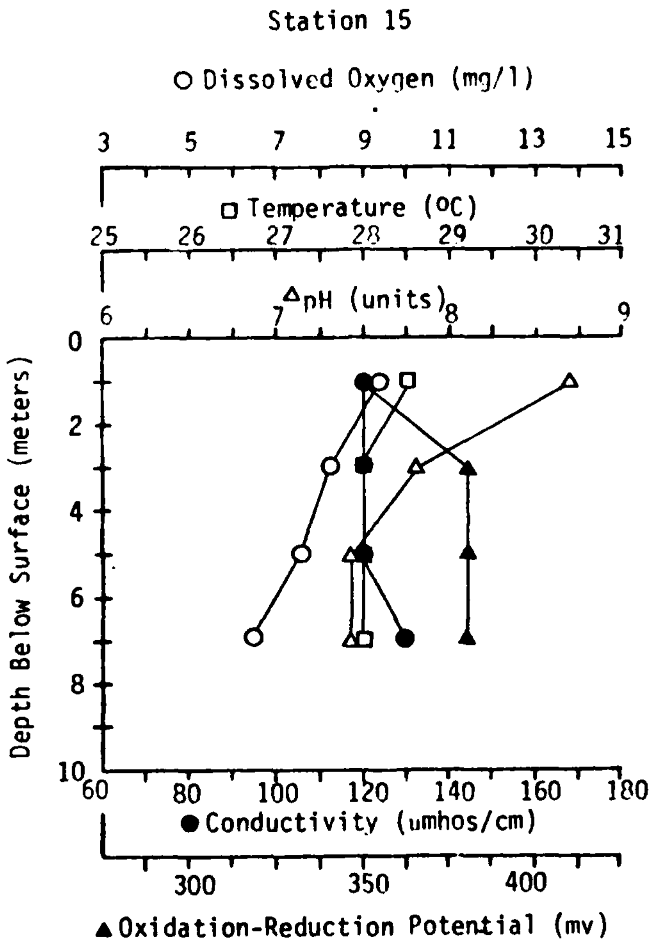
FIGURE F-4c. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 4, AUGUST 14-17, 1978.



*Distance from Right Bank Facing Upstream

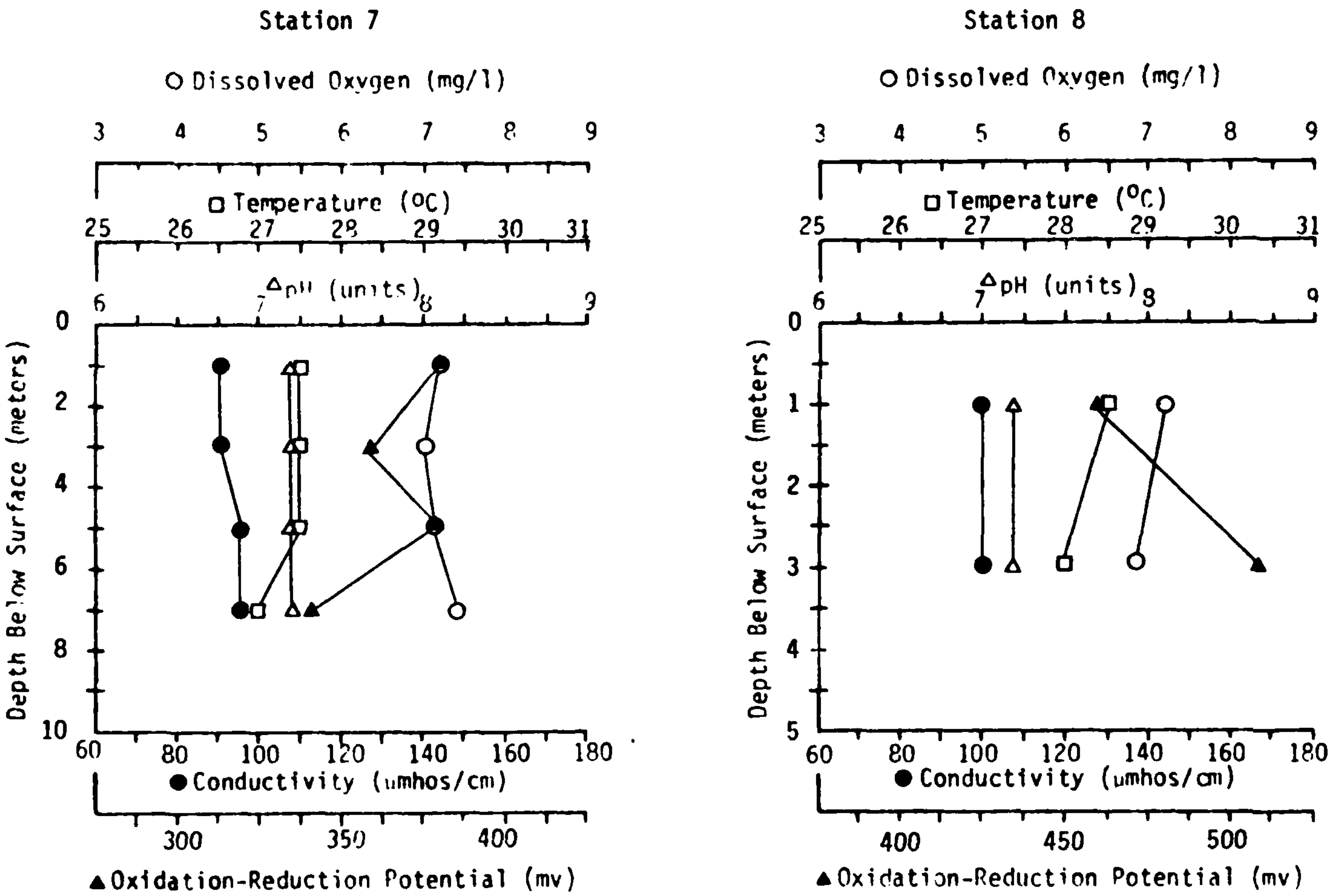
Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-4d. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 4, AUGUST 14-17, 1978.



Unless otherswise noted, profiles taken at midpoint in cross section.

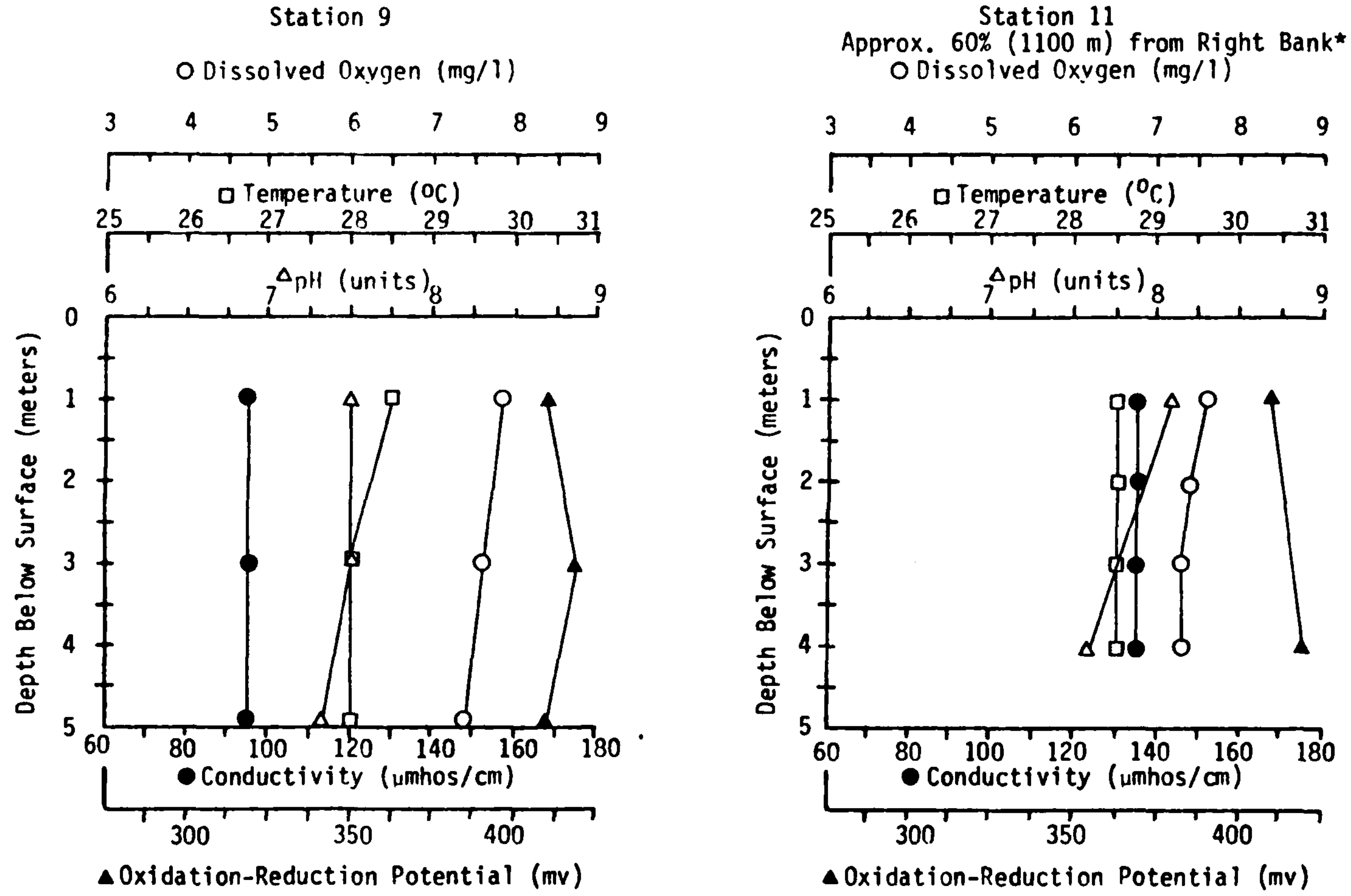
FIGURE F-5a. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN <u>IN SITU</u> CYCLE 5, SEPTEMBER 25-27, 1978.


Station 7

Station 8

Unless otherwise noted, profiles taken at midpoint in cross section.

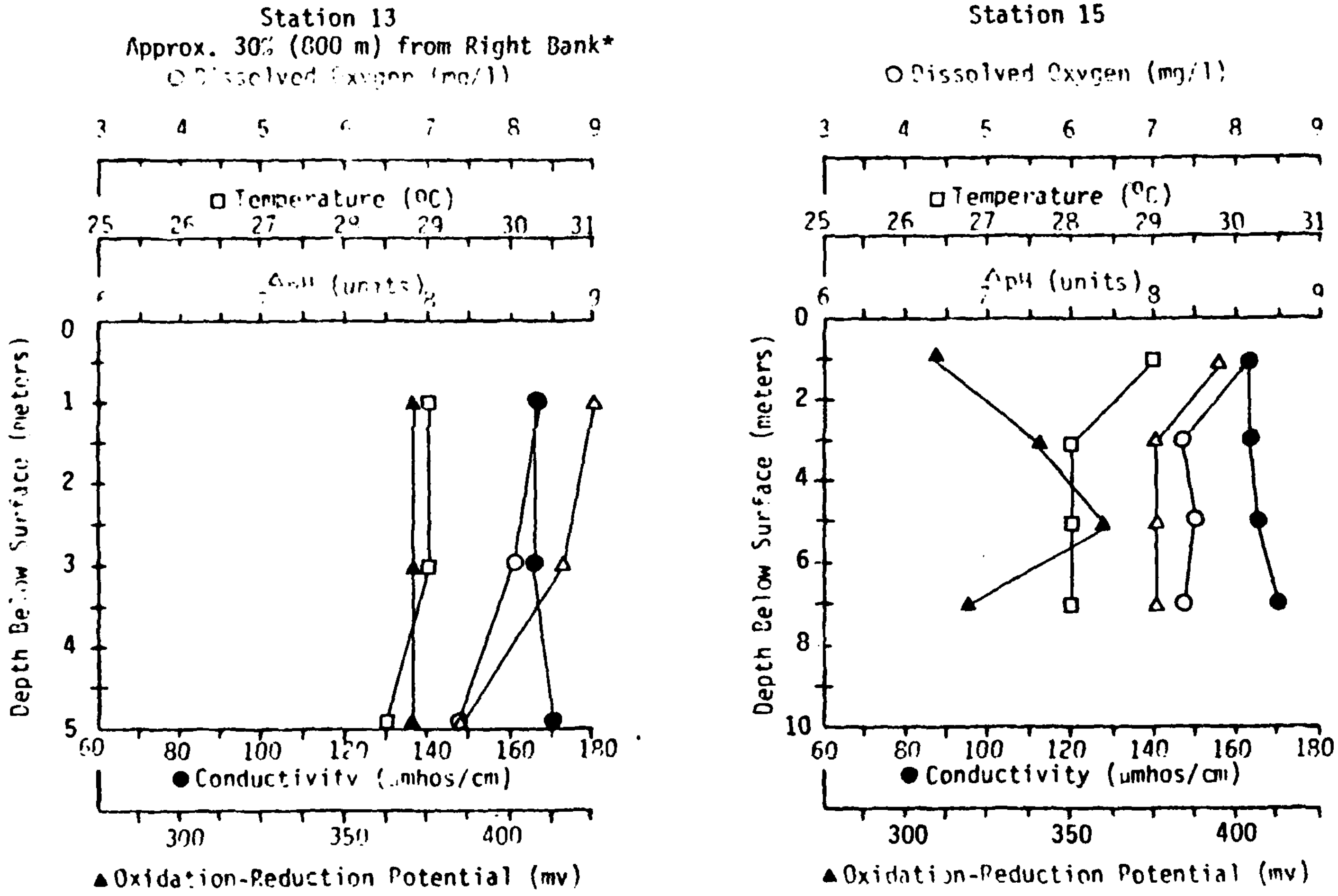
FIGURE F-5b. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 5, SEPTEMBER 25-27, 1978.



*Distance from Right Bank Facing Upstream

Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-5c. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN *IN SITU* CYCLE 5, SEPTEMBER 25-27, 1978.

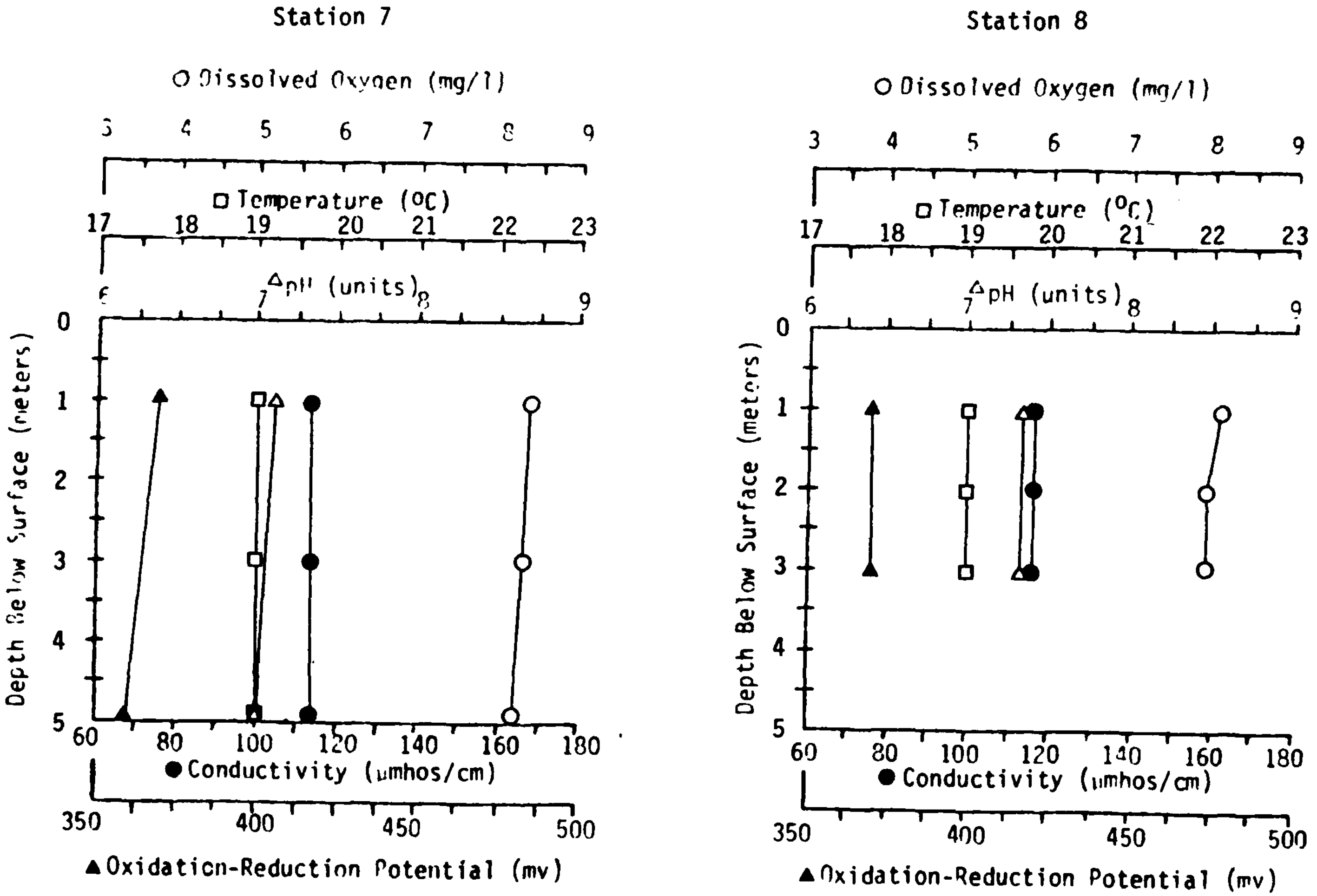

Station 13
Approx. 30% (800 m) from Right Bank*

Station 15

*Distance from Right Bank Facing Downstream

Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-6a. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 6, NOVEMBER 28-30, 1978.

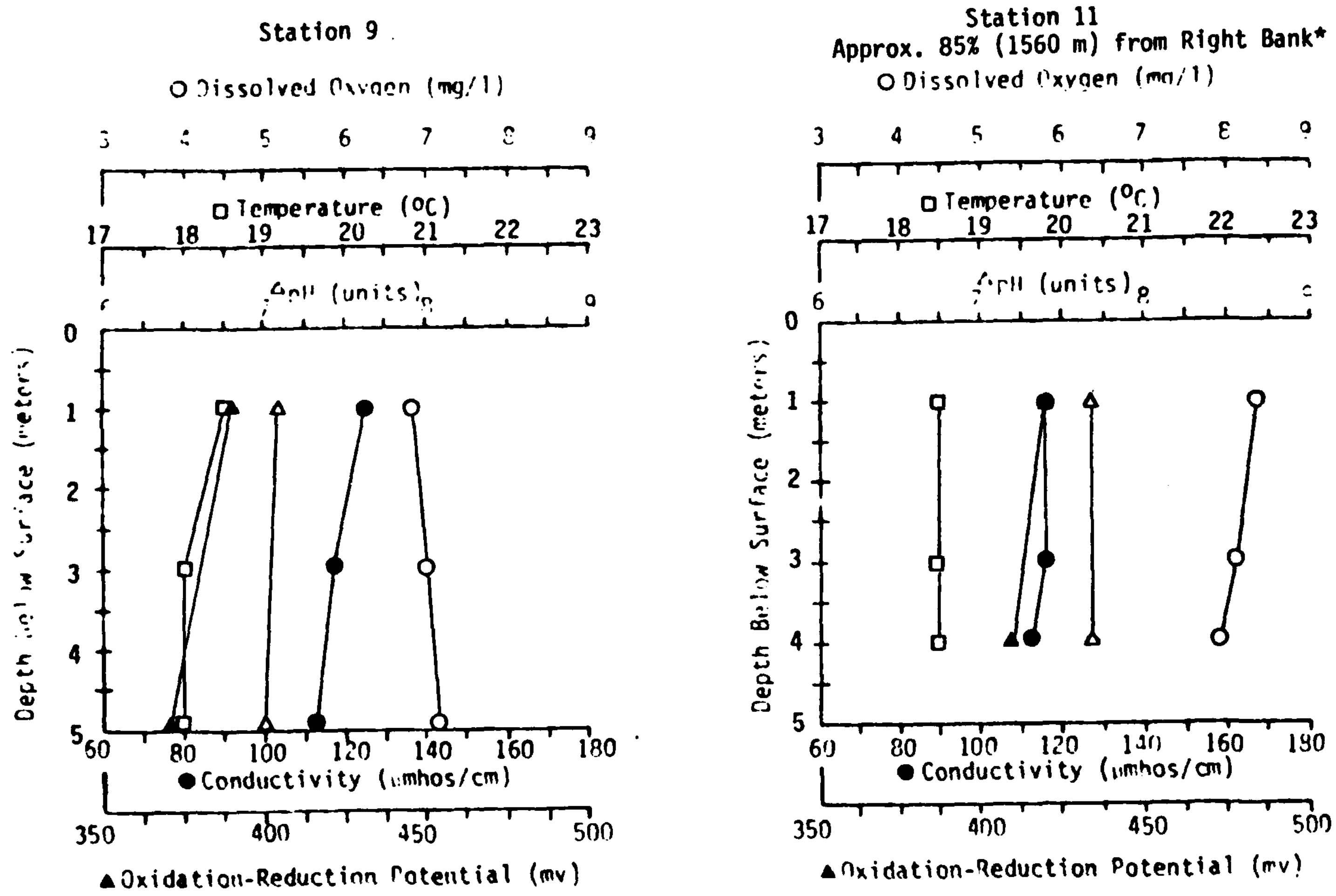


Station 7

Station 8

Unless otherwise noted, profiles taken at midpoint in cross section.

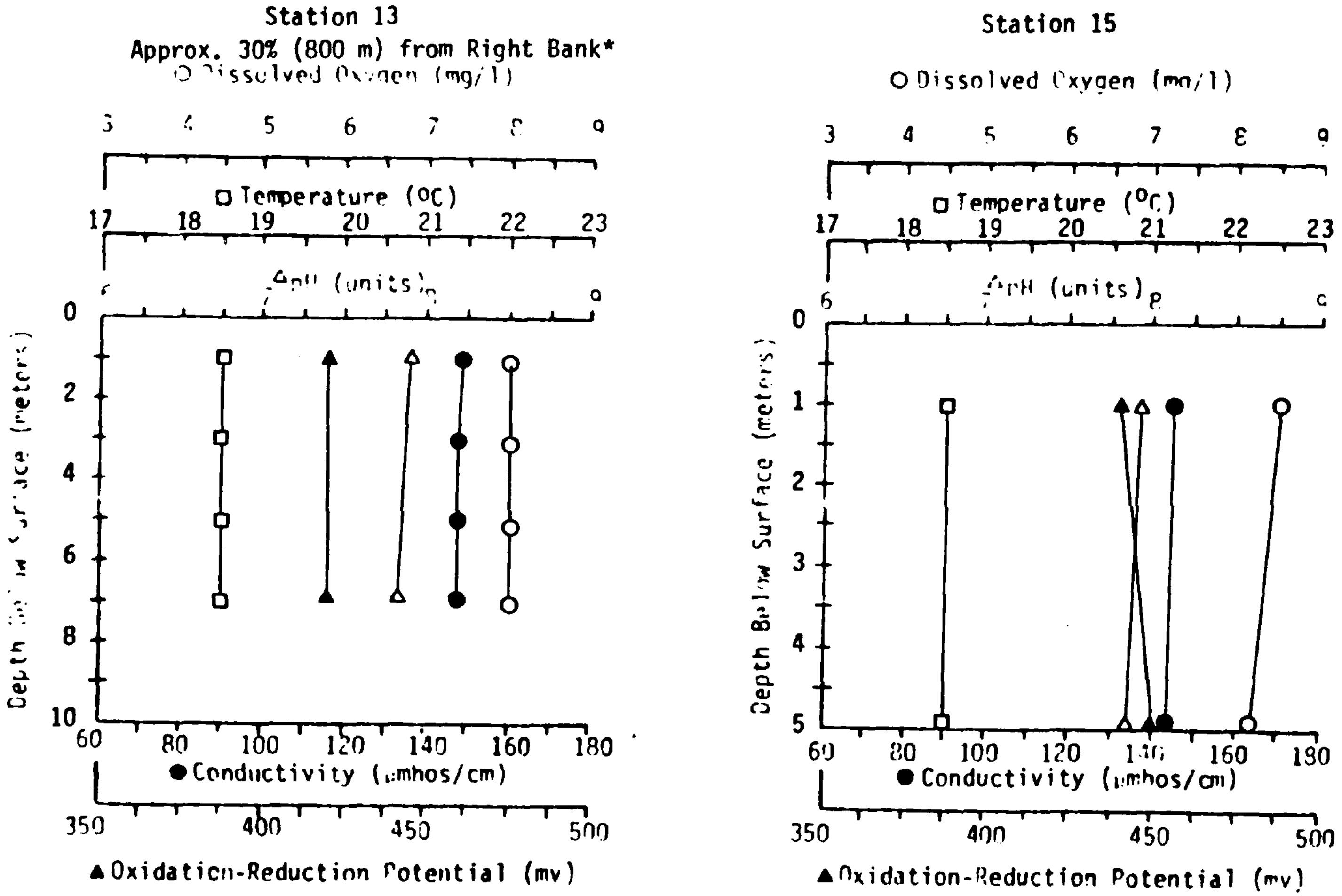
FIGURE F-6b. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 6, NOVEMBER 28-30, 1978.



*Distance from Right Bank Facing Upstream

Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-6c. DISSOLVED OXYGEN, TEMPERATURE, pH, CONDUCTIVITY, AND OXIDATION-REDUCTION POTENTIAL VERTICAL PROFILES, TAKEN IN SITU CYCLE 6, NOVEMBER 28-30, 1978.


Station 13

Approx. 30% (800 m) from Right Bank*

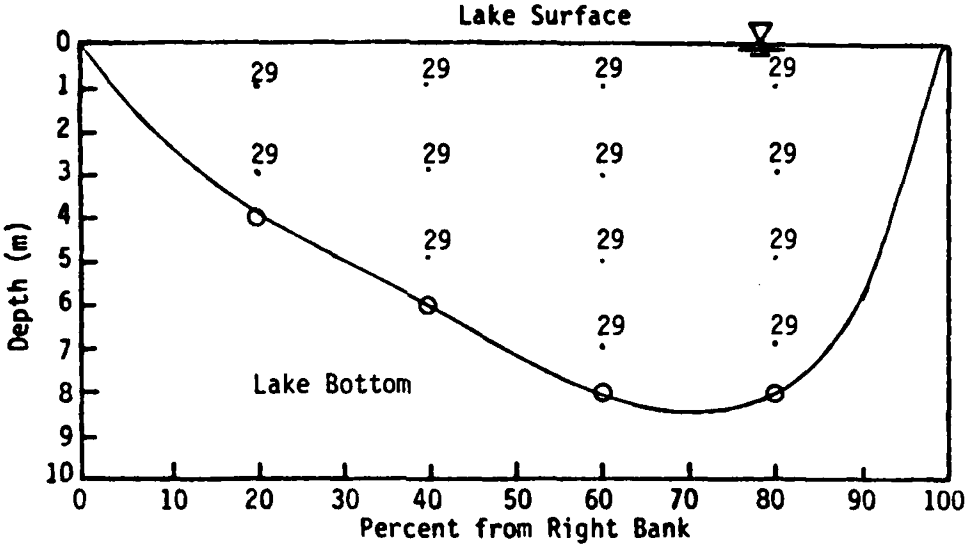
Station 15

*Distance from Right Bank Facing Upstream

Unless otherwise noted, profiles taken at midpoint in cross section.

FIGURE F-7. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 7.

a) Isotherms (^{o}C)



b) Dissolved Oxygen (mg/l)

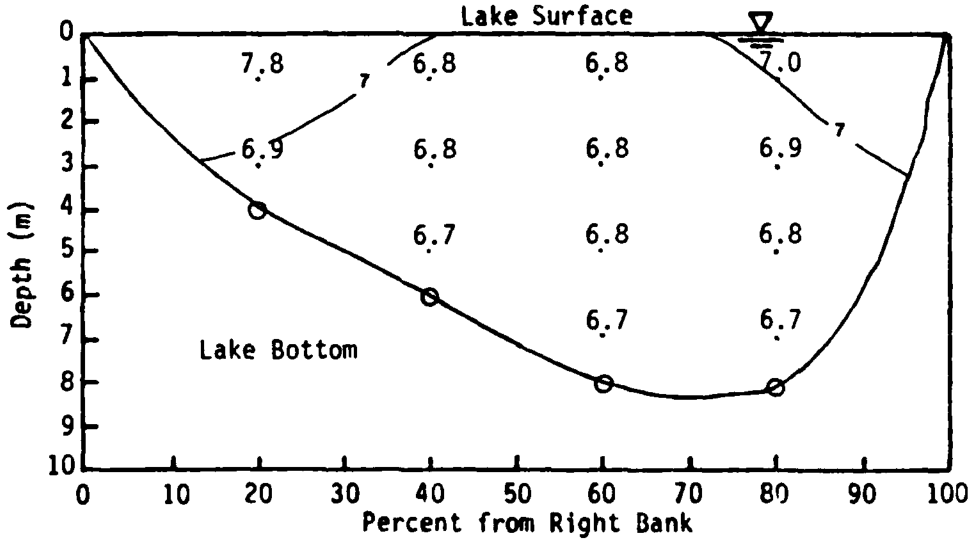
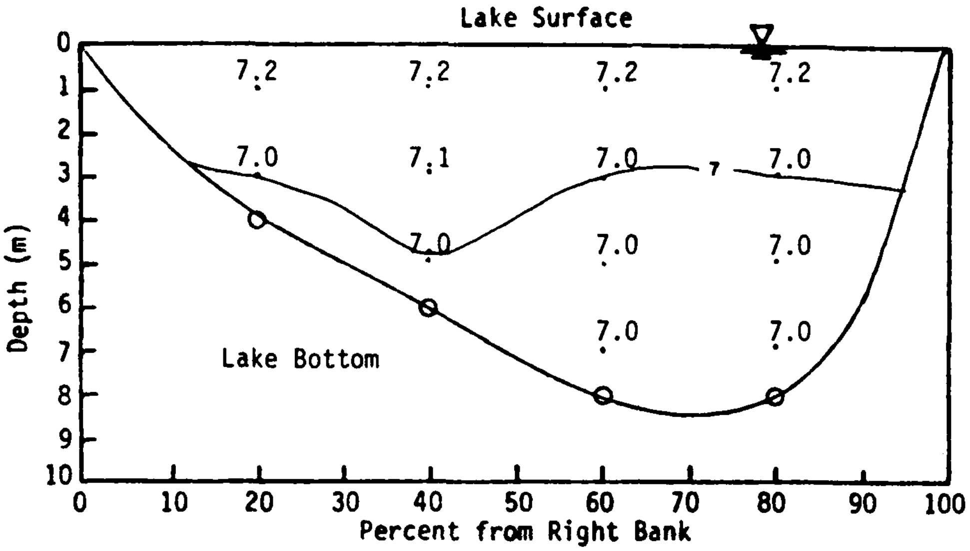


FIGURE F-7 . TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN <u>IN SITU</u>, CYCLE 4, AUGUST 14-17, 1978 AT STATION 7.

c) pH



d) Specific Conductance (μmhos/cm @25°C)

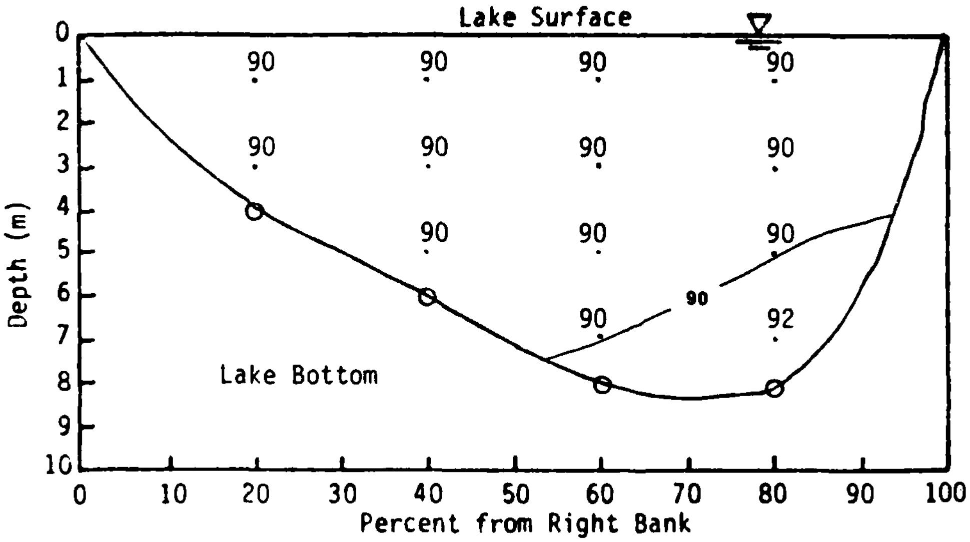


FIGURE F-7 . TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN *IN SITU*, CYCLE 4, AUGUST 14-17, 1978 AT STATION 7.

e) Oxidation Reduction Potential (mv)

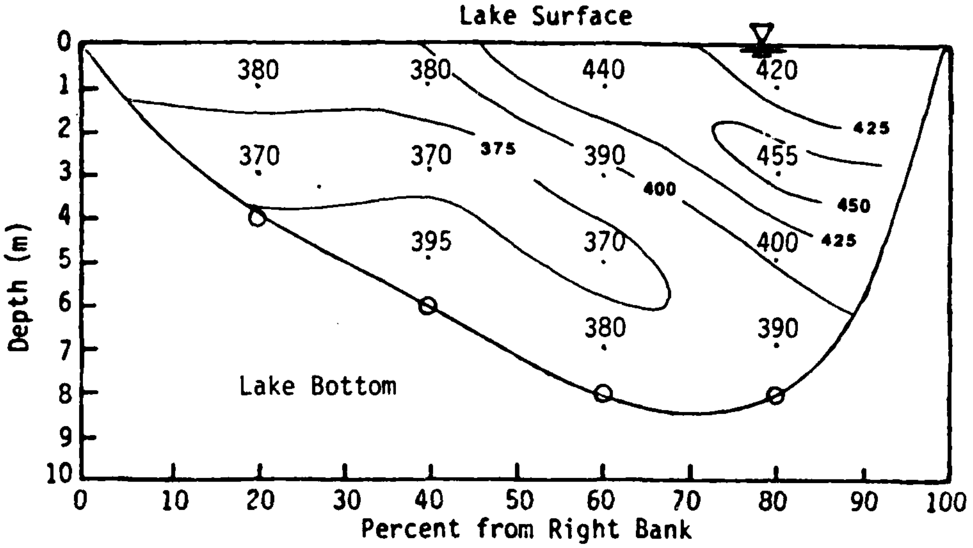
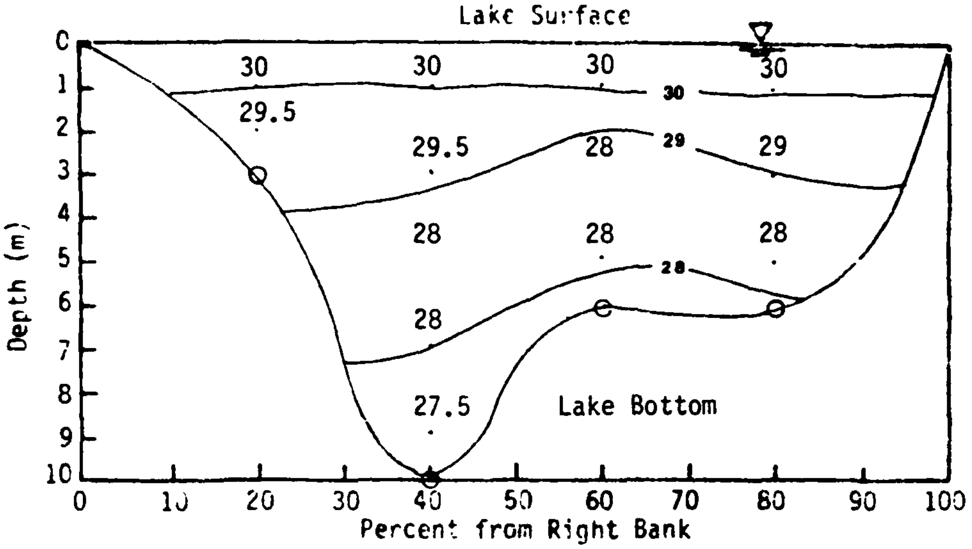


FIGURE F-8. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 11.

a) Isotherms (^{o}C)



b) Dissolved Oxygen (mg/l)

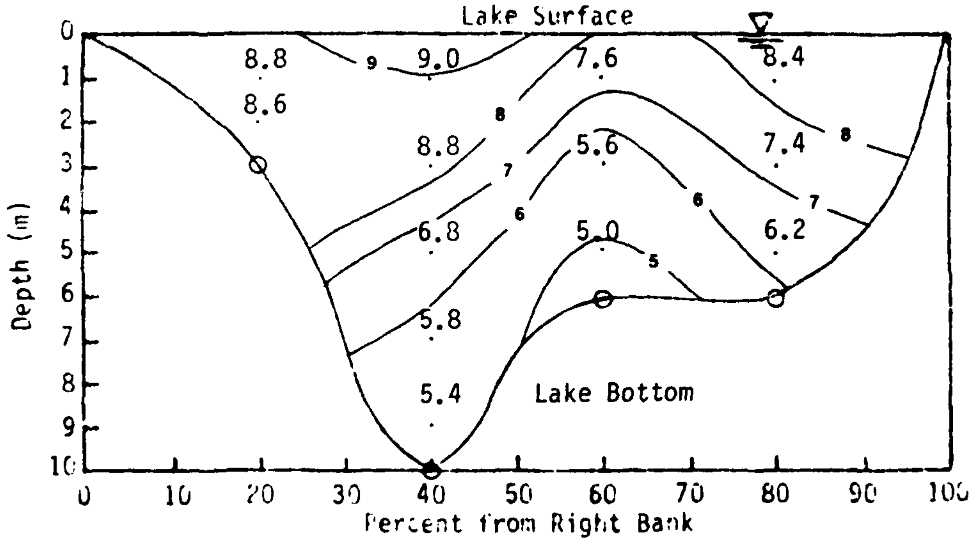
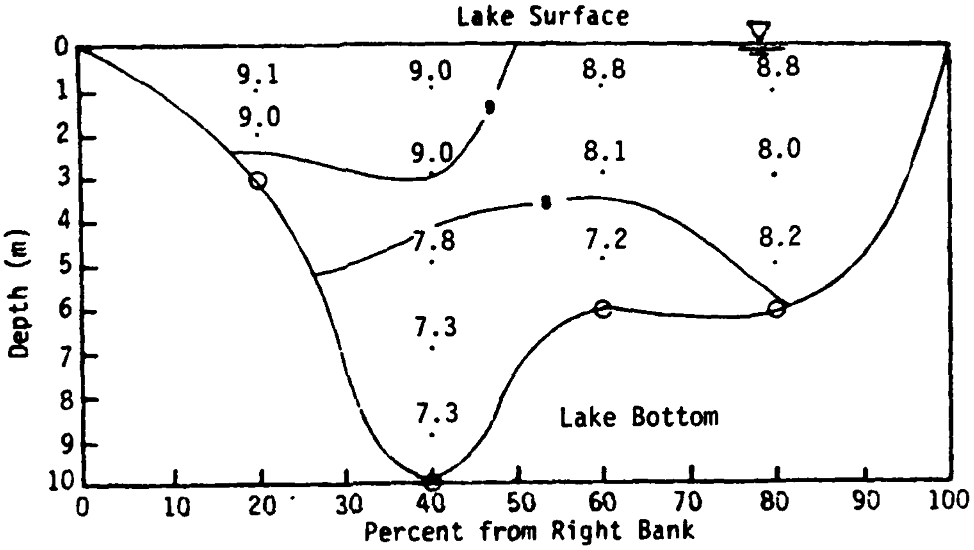


FIGURE F-8. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 11.

c) pH



d) Specific Conductance (μmho/cm @25°C)

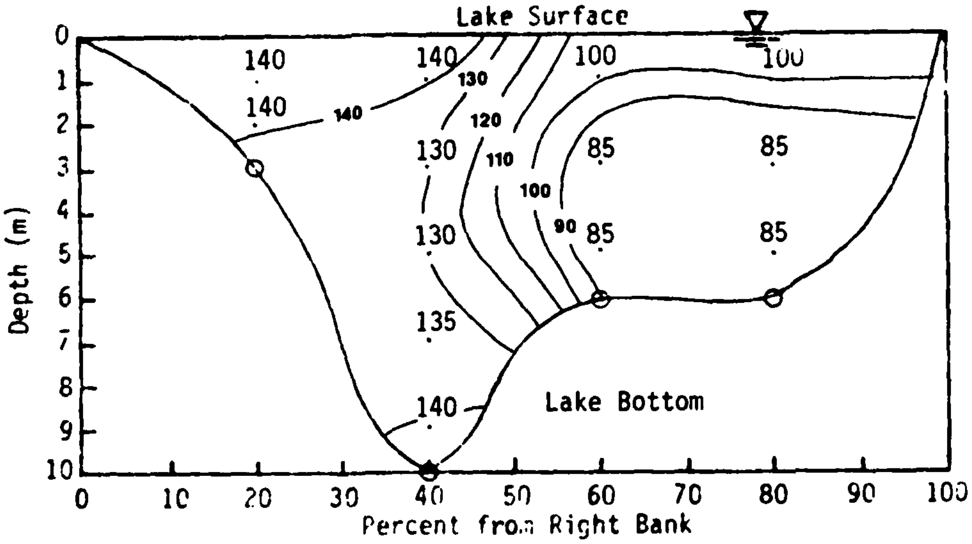


FIGURE F-8. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 11.

e) Oxidation Reduction Potential (mv)

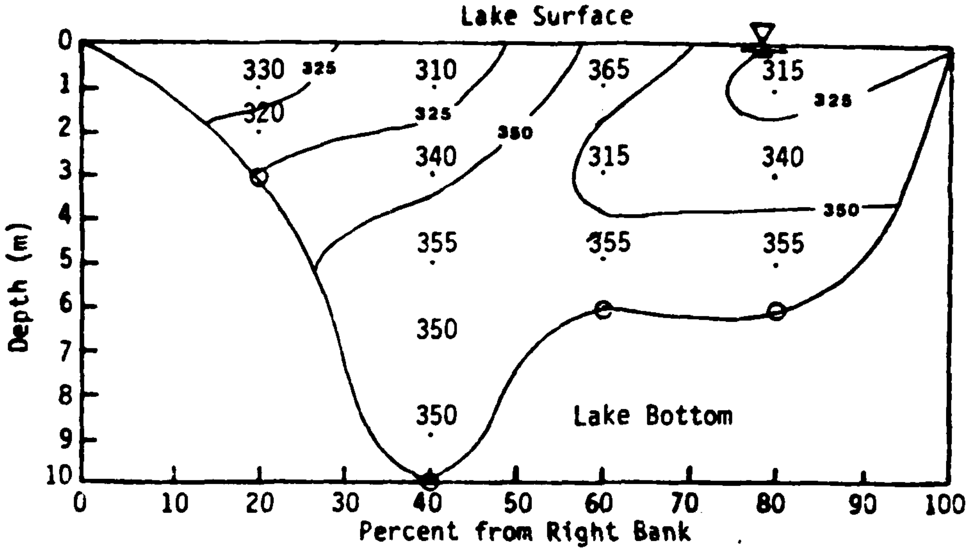
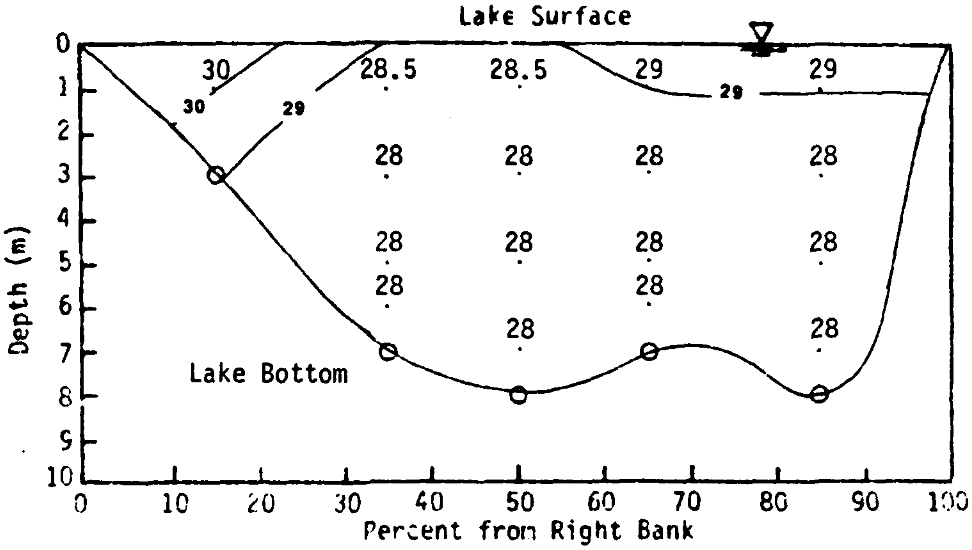


FIGURE F-9. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 15.

a) Isotherms (°C)



b) Dissolved Oxygen (mg/l)

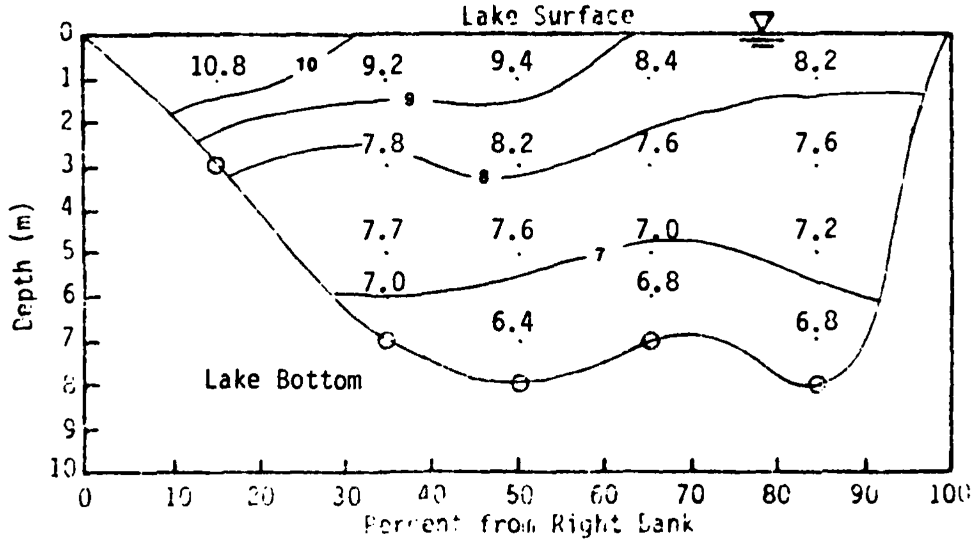
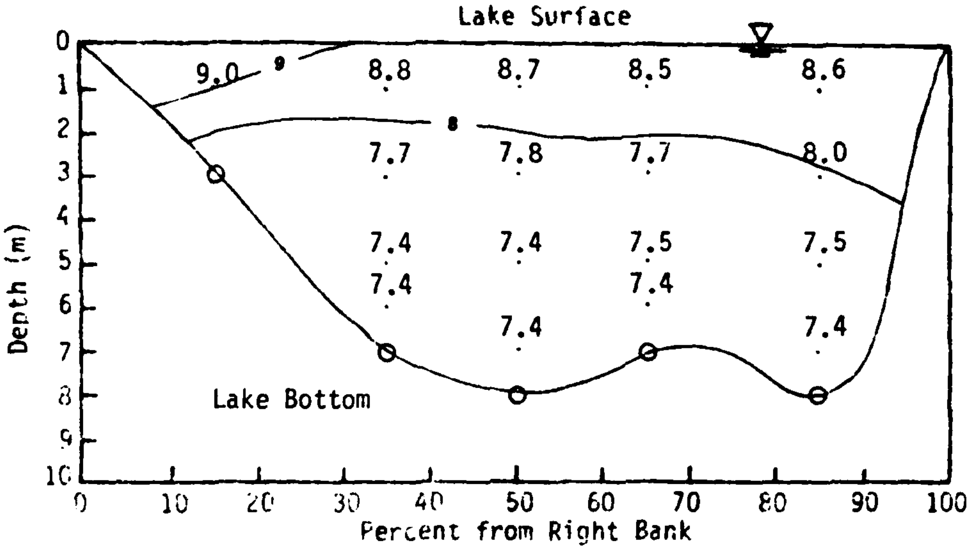


FIGURE F-9. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 15

c) pH



d) Specific Conductance (μmho/cm @25°C)

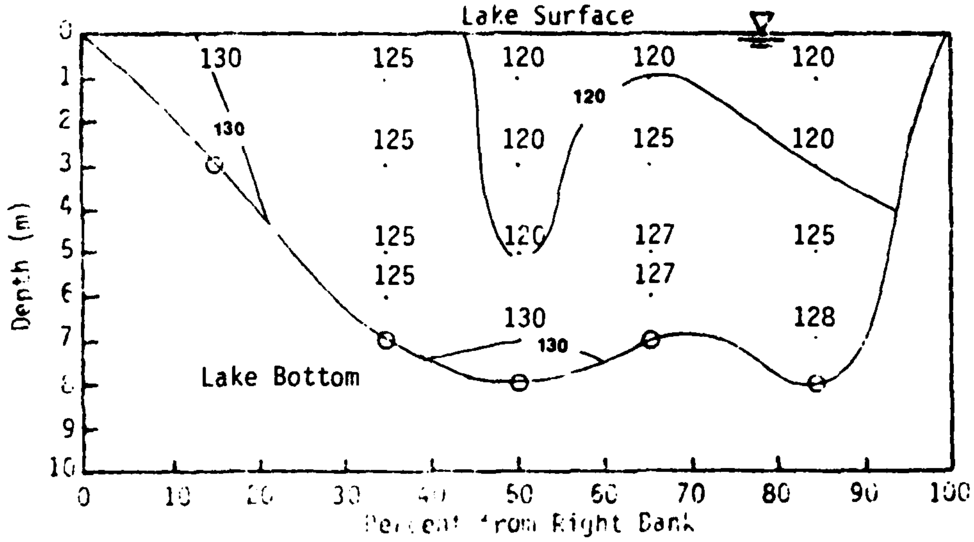
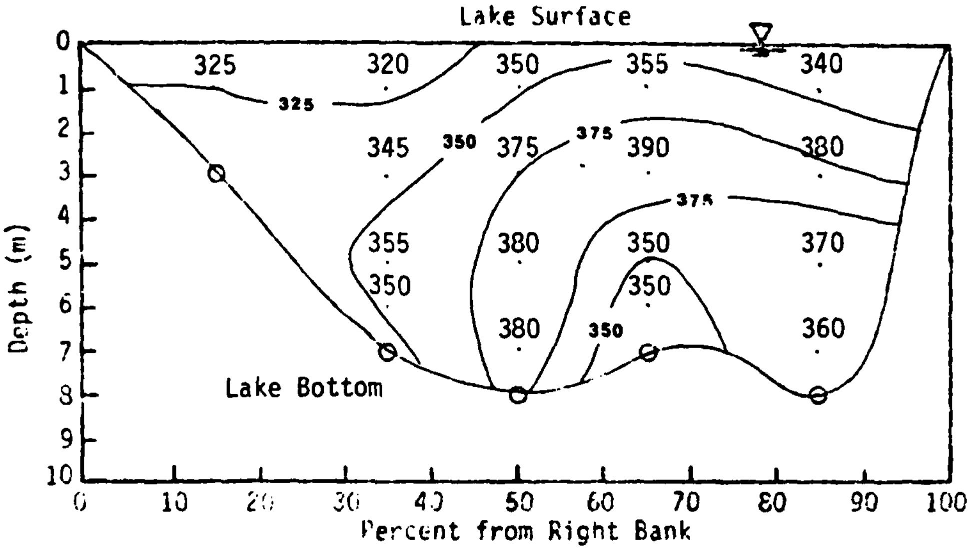


FIGURE F-9. TEMPERATURE, DISSOLVED OXYGEN, pH, SPECIFIC CONDUCTANCE, AND OXIDATION-REDUCTION POTENTIAL ISOPLETHS TAKEN IN SITU, CYCLE 4, AUGUST 14-17, 1978 AT STATION 15.

e) Oxidation Reduction Potential (mv)



APPENDIX G

ALGAL GROWTH POTENTIAL TEST RESULTS

LIST OF TABLES

TABLE G-1

ALGAL GROWTH POTENTIAL

Cycle 1 Station 6 Date Collected 4/18/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	9.85	9.21	9.38	9.48 ± 0.66	9.56	9.43	9.76	9.58 ± 0.33	9.53 ± 0.48
LW+P	15.71	16.23	16.51	16.51 ± 0.81	15.32	16.37	15.87	15.85 ± 1.05	16.00 ± 0.90
LW+N	9.63	9.56	9.21	9.47 ± 0.45	9.53	9.28	9.85	9.55 ± 0.57	9.51 ± 0.47
LW+P+N	29.46	28.71	30.58	29.58 ± 1.88	33.91	32.56	31.58	32.68 ± 2.34	31.13 ± 3.89
LW+E	9.67	9.73	9.52	9.64 ± 0.22	9.83	9.91	9.25	9.66 ± 0.72	9.65 ± .048
LW+P+E	16.21	17.03	16.32	16.52 ± 0.89	15.42	16.91	15.42	15.94 ± 1.72	16.22 ± 1.39
LW+N+E	9.52	9.91	9.65	9.69 ± 0.40	9.32	9.48	9.51	9.44 ± 0.20	9.57 ± 0.40
LW+P+N+E	30.32	31.56	30.21	30.70 ± 1.50	31.56	33.21	32.51	32.42 ± 1.66	31.56 ± 2.36

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.2	7.2
Specific Conductance (μmho cm^{-1})	78	63
Total Kjeldahl Nitrogen (mg N l^{-1})	0.53	0.47
NH_3-N (mg N l^{-1})	0.09	0.10
NO_2^- + NO_3^- - N (mg N l^{-1})	0.283	0.322
Dissolved Ortho-phosphate (mg P l^{-1})	0.016	0.023
Total Phosphorus (mg P l^{-1})	0.045	0.040

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 7 Date Collected 4/19/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	8.65	8.91	9.32	8.96 ± 0.68	8.95	8.92	8.63	8.83 ± 0.35	8.89 ± 0.50
LW+P	13.65	13.78	13.42	13.62 ± 0.36	13.31	13.61	13.42	13.45 ± 0.30	13.53 ± 0.35
LW+N	8.92	8.31	8.49	8.57 ± 0.63	9.51	9.23	9.16	9.18 ± 0.09	8.88 ± 0.78
LW+P+N	30.01	30.21	31.05	30.42 ± 1.10	30.32	29.25	29.34	29.64 ± 1.19	30.03 ± ;/34
LW+E	8.72	8.35	8.46	8.51 ± 0.38	8.72	8.39	9.05	8.72 ± 0.66	8.62 ± 0.53
LW+P+E	14.20	13.56	13.43	13.73 ± 0.82	13.79	14.51	13.96	13.92 ± 1.22	13.83 ± 0.48
LW+N+E	9.06	9.05	9.31	9.14 ± 0.29	8.72	9.21	9.06	9.00 ± 0.50	9.07 ± 0.40
LW+P+N+E	30.61	30.42	31.00	30.68 ± 0.59	31.06	29.71	30.56	30.44 ± 1.36	30.56 ± 0.97

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.1	7.1
Specific Conductance (μmho cm^{-1})	53	46
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.60	0.50
NH_3-N (mg N 1^{-1})	0.15	0.08
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.265	0.275
Dissolved Ortho-phosphate (mg P 1^{-1})	0.015	0.021
Total Phosphorus (mg P 1^{-1})	0.045	0.027

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 9 Date Collected 4/19/78 Date Processed 4/21/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	7.75	7.62	7.21	7.53 ± 0.56	8.06	8.21	8.02	8.10 ± 0.20	7.81 ± 0.73
LW+P	15.83	15.21	16.00	15.68 ± 0.83	16.52	16.18	16.43	16.38 ± 0.35	16.03 ± 0.58
LW+N	7.98	7.81	7.99	7.93 ± 0.20	7.21	7.83	7.84	7.63 ± 0.72	7.78 ± 0.58
LW+P+N	28.42	29.46	28.13	28.67 ± 1.40	29.74	30.05	31.06	30.28 ± 1.38	29.48 ± 2.16
LW+E	7.65	8.05	8.10	7.93 ± 0.49	7.55	7.62	7.83	7.67 ± 0.29	7.80 ± 0.47
LW+P+E	15.95	16.28	15.55	15.93 ± 0.73	15.45	16.32	15.41	15.73 ± 1.03	15.83 ± 0.83
LW+N+E	7.59	7.83	7.46	7.63 ± 0.38	7.95	7.86	7.42	7.74 ± 0.56	7.69 ± 0.45
LW+P+N+E	29.95	29.47	30.03	29.82 ± 0.61	30.16	30.89	29.32	30.12 ± 1.57	30.00 ± 1.12

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.1	7.1
Specific Conductance (umho cm^{-1})	78	64
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.57	0.39
NH_3-N (mg N 1^{-1})	0.11	0.11
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.296	0.306
Dissolved Ortho-phosphate (mg P 1^{-1})	0.011	0.018
Total Phosphorus (mg P 1^{-1})	0.059	0.057

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 10 Date Collected 4/20/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	7.91	8.13	8.31	8.12 ± 0.40	8.12	8.75	8.93	8.70 ± 0.52	8.41 ± 0.76
LW+P	13.62	13.21	14.01	13.61 ± 0.80	13.21	14.10	13.05	13.45 ± 1.13	13.53 ± 0.89
LW+N	7.87	7.95	7.68	7.83 ± 0.28	8.62	8.65	8.34	8.55 ± 0.28	8.19 ± 0.83
LW+P+N	30.01	29.03	29.65	29.56 ± 0.99	29.15	28.98	30.12	29.42 ± 1.23	29.49 ± 1.01
LW+E	7.86	8.03	8.15	8.01 ± 0.29	8.65	8.92	8.43	8.67 ± 0.49	8.34 ± 0.80
LW+P+E	14.23	13.96	14.15	14.11 ± 0.28	14.05	13.19	14.54	13.93 ± 1.37	14.02 ± 0.91
LW+N+E	7.99	8.65	8.54	8.39 ± 0.71	8.53	7.96	8.42	8.30 ± 0.60	8.35 ± 0.60
LW+P+N+E	31.30	30.57	31.20	31.02 ± 0.79	30.15	29.83	30.15	30.04 ± 0.37	30.53 ± 1.20

7.86

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	6.7	6.7
Specific Conductance (μmho cm^{-1})	66	56
Total Kjeldahl Nitrogen (mg N l^{-1})	0.74	0.41
NH_3-N (mg N l^{-1})	0.11	0.08
NO_2^- + NO_3^- - N (mg N l^{-1})	0.242	0.274
Dissolved Ortho-phosphate (mg P l^{-1})	0.009	0.020
Total Phosphorus (mg P l^{-1})	0.080	0.055

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 11 Date Collected 4/20/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	9.95	10.10	9.85	9.97 ± 0.25	9.21	9.91	9.45	9.52 ± 0.71	9.75 ± 0.68
LW+P	15.91	16.94	15.92	16.26 ± 0.59	15.21	16.32	16.15	15.89 ± 1.20	16.01 ± 1.14
LW+N	9.82	10.15	10.26	10.08 ± 0.46	10.13	9.25	9.43	9.60 ± 0.93	9.84 ± 0.84
LW+P+N	32.35	30.91	31.26	31.51 ± 1.50	31.42	29.15	28.61	29.73 ± 2.98	30.62 ± 2.87
LW+E	9.56	10.21	10.53	10.10 ± 0.99	10.13	9.95	10.81	10.30 ± 0.91	10.20 ± 0.88
LW+P+E	16.21	16.03	16.32	16.19 ± 0.29	16.91	15.21	15.95	16.02 ± 1.70	16.11 ± 1.11
LW+N+E	9.27	8.26	9.97	9.17 ± 1.72	9.95	10.15	10.32	10.14 ± 0.37	9.65 ± 1.54
LW+P+N+E	33.21	32.15	36.17	33.84 ± 4.17	30.21	30.32	31.95	30.83 ± 1.95	32.33 ± 4.40

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.1	7.1
Specific Conductance (μmho cm^{-1})	79	63
Total Kjeldahl Nitrogen (mg N l^{-1})	0.76	0.64
NH_3-N (mg N l^{-1})	0.07	0.12
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	0.274	0.306
Dissolved Ortho-phosphate (mg P l^{-1})	0.009	0.023
Total Phosphorus (mg P l^{-1})	0.087	0.058

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 12 Date Collected 4/20/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	1.75	1.32	1.40	1.49 ± 0.46	1.95	1.03	1.27	1.42 ± 0.95	1.45 ± 0.67
LW+P	2.58	2.13	2.96	2.56 ± 0.83	2.65	2.02	1.83	2.17 ± 0.86	2.36 ± 0.87
LW+N	1.63	1.24	1.05	1.31 ± 0.59	1.02	1.15	1.32	1.16 ± 0.30	1.24 ± 0.45
LW+P+N	22.51	21.05	21.32	21.63 ± 1.55	21.43	22.40	21.50	21.78 ± 1.08	21.70 ± 1.21
LW+E	1.83	1.21	0.99	1.34 ± 0.87	1.56	1.08	2.93	1.86 ± 1.92	1.60 ± 1.45
LW+P+E	2.68	1.76	3.07	2.50 ± 1.34	3.15	2.59	2.96	2.90 ± 0.57	2.70 ± 1.02
LW+N+E	2.60	1.32	1.57	1.83 ± 1.36	1.59	2.03	1.32	1.65 ± 0.72	1.74 ± 0.99
LW+P+N+E	21.22	20.15	19.03	20.13 ± 2.19	19.15	19.99	21.32	20.15 ± 2.19	20.14 ± 1.96

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.7	7.7
Specific Conductance (μmho cm^{-1})	105	94
Total Kjeldahl Nitrogen (mg N l^{-1})	0.70	0.56
NH_3-N (mg N l^{-1})	0.03	0.05
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	0.007	0.015
Dissolved Ortho-phosphate (mg P l^{-1})	0.003	0.004
Total Phosphorus (mg P l^{-1})	0.026	0.012

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 13 Date Collected 4/20/78 Date Processed 4/21/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	10.59	11.51	11.21	11.10 ± 0.94	12.05	11.65	11.21	11.64 ± 0.84	11.37 ± 0.99
LW+P	16.05	15.13	15.55	15.58 ± 0.92	16.01	15.52	15.62	15.72 ± 0.52	15.65 ± 0.69
LW+N	10.59	11.52	12.15	11.42 ± 1.57	10.32	11.15	11.32	10.93 ± 1.07	11.18 ± 1.32
LW+P+N	33.55	34.21	32.15	33.30 ± 2.10	30.59	32.16	33.42	32.01 ± 2.84	32.68 ± 2.62
LW+E	10.15	10.32	11.02	10.50 ± 0.92	10.53	10.21	11.33	10.69 ± 1.15	10.59 ± 0.96
LW+P+E	16.32	17.35	16.31	16.66 ± 1.20	16.89	15.92	16.93	16.58 ± 1.14	16.62 ± 1.05
LW+N+E	10.11	9.75	9.98	9.95 ± 0.36	11.15	9.93	10.01	10.36 ± 1.36	10.16 ± 1.00
LW+P+N+E	32.48	34.01	31.52	32.67 ± 2.51	31.42	34.76	30.92	32.37 ± 4.17	32.52 ± 3.10

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.5	7.5
Specific Conductance (μmho cm^{-1})	103	73
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.76	0.71
NH_3-N (mg N 1^{-1})	0.06	0.08
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.285	0.326
Dissolved Ortho-phosphate (mg P 1^{-1})	0.021	0.027
Total Phosphorus (mg P 1^{-1})	0.082	0.068

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 14 Date Collected 4/20/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	4.31	2.98	3.15	3.48 ± 1.45	3.24	3.81	4.22	3.76 ± 0.98	3.62 ± 1.15
LW+P	11.21	10.93	11.96	11.37 ± 1.07	11.42	11.06	12.83	11.77 ± 1.87	11.57 ± 1.43
LW+N	4.22	3.15	4.28	3.88 ± 1.27	4.39	4.65	4.62	4.55 ± 0.28	4.22 ± 1.10
LW+P+N	26.90	26.85	27.18	26.98 ± 0.36	25.43	27.92	26.33	26.56 ± 2.52	26.77 ± 1.67
LW+E	4.21	4.10	3.29	3.87 ± 1.0	4.15	4.72	3.90	4.26 ± 0.84	4.06 ± 0.93
LW+P+E	11.55	12.68	13.21	12.48 ± 1.70	12.20	11.15	10.82	11.39 ± 1.44	11.94 ± 1.85
LW+N+E	4.82	4.31	4.11	4.41 ± 0.73	4.91	4.62	3.92	4.48 ± 1.02	4.40 ± 0.97
LW+P+N+E	28.20	27.31	26.95	27.49 ± 1.29	26.48	28.35	26.92	27.25 ± 1.96	27.37 ± 1.50

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.7	7.7
Specific Conductance (μmho cm^{-1})	155	140
Total Kjeldahl Nitrogen (mg N l^{-1})	0.63	0.63
NH_3-N (mg N l^{-1})	0.05	0.08
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	0.206	0.218
Dissolved Ortho-phosphate (mg P l^{-1})	0.005	0.010
Total Phosphorus (mg P l^{-1})	0.045	0.034

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 15 Date Collected 4/21/78 Date Processed 4/24/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	15.48	13.21	16.92	15.20 ± 3.74	15.32	14.81	13.92	14.68 ± 1.42	14.94 ± 2.59
LW+P	21.30	21.00	18.52	20.27 ± 3.05	19.29	17.68	19.20	18.72 ± 1.81	19.50 ± 2.81
LW+N	14.83	15.21	13.29	14.44 ± 2.03	15.51	16.03	14.09	15.21 ± 2.01	14.83 ± 1.99
LW+P+N	36.95	32.15	36.15	35.08 ± 5.14	30.42	31.81	29.92	30.72 ± 1.96	32.90 ± 5.92
LW+E	15.41	13.92	16.83	15.39 ± 2.91	15.32	15.10	14.99	15.14 ± 0.67	15.26 ± 1.87
LW+P+E	21.99	23.68	21.42	22.36 ± 2.35	19.62	19.23	19.28	19.38 ± 0.42	20.87 ± 3.60
LW+N+E	14.83	15.42	16.91	15.72 ± 2.14	15.81	13.92	16.10	15.28 ± 2.37	15.50 ± 2.08
LW+P+N+E	37.48	36.18	37.21	36.96 ± 1.37	36.48	38.20	37.15	37.28 ± 1.73	37.12 ± 1.44

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.2	7.2
Specific Conductance (μmho cm^{-1})	97	83
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.55	0.55
NH_3-N (mg N 1^{-1})	0.08	0.15
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.320	0.374
Dissolved Ortho-phosphate (mg P 1^{-1})	0.029	0.036
Total Phosphorus (mg P 1^{-1})	0.099	0.083

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 16 Date Collected 4/21/78 Date Processed 4/24/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	13.75	12.61	13.76	13.37 ± 1.32	12.48	13.61	14.20	13.43 ± 1.75	13.40 ± 1.39
LW+P	21.48	26.31	24.21	24.00 ± 4.84	22.38	24.59	23.62	23.53 ± 2.22	23.77 ± 3.41
LW+N	13.05	15.10	13.22	13.79 ± 1.14	14.15	13.68	14.02	13.95 ± 0.49	13.87 ± 1.48
LW+P+N	34.28	31.21	33.42	32.97 ± 1.58	33.56	34.32	35.16	34.35 ± 1.60	33.66 ± 2.70
LW+E	13.15	23.21	14.28	16.88 ± 11.02	15.15	14.02	13.69	14.29 ± 1.53	15.58 ± 7.59
LW+P+E	22.51	13.75	21.46	19.24 ± 9.57	21.86	24.23	23.36	23.15 ± 2.40	21.20 ± 7.57
LW+N+E	14.21	35.33	13.16	20.90 ± 25.02	14.18	13.21	13.38	13.59 ± 1.04	17.25 ± 17.74
LW+P+N+E	36.42		38.21	37.32 ± 2.53	35.41	36.28	34.19	35.29 ± 2.10	36.06 ± 3.00

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.2	7.2
Specific Conductance (μmho cm^{-1})	105	85
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.01	0.57
NH_3-N (mg N 1^{-1})	0.07	0.18
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.356	0.432
Dissolved Ortho-phosphate (mg P 1^{-1})	0.023	0.032
Total Phosphorus (mg P 1^{-1})	0.100	0.082

TABLE G-1 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 1 Station 18 Date Collected 4/19/78 Date Processed 4/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	9.32	10.85	10.32	10.16 ± 1.55	10.15	10.92	10.32	10.46 ± 0.81	10.31 ± 1.16
LW+P	16.83	15.96	16.32	16.37 ± 0.87	15.81	19.85	16.32	17.33 ± 4.40	16.84 ± 3.02
LW+N	9.99	10.32	10.56	10.29 ± 0.57	11.56	12.32	10.15	11.34 ± 2.20	10.82 ± 1.84
LW+P+N	32.45	32.61	33.15	32.74 ± 0.73	33.68	38.21	33.22	35.04 ± 5.52	33.89 ± 1.84
LW+E	10.93	10.11	10.03	10.36 ± 1.00	12.60	13.72	9.86	12.06 ± 3.97	11.21 ± 3.19
LW+P+E	16.86	15.85	16.92	16.54 ± 1.20	16.99	18.92	17.63	17.85 ± 1.97	17.20 ± 2.04
LW+N+E	10.75	10.89	10.11	10.58 ± 0.83	10.99	8.95	12.32	10.75 ± 1.70	10.67 ± 2.22
LW+P+N+E	33.86	38.21	31.40	34.49 ± 6.90	35.68	33.92	33.43	34.34 ± 2.37	34.42 ± 4.61

Background Water Quality

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Parameter and Units	Before Processing	After Processing
pH	7.4	7.4
Specific Conductance (umho cm^{-1})	86	76
Total Kjeldahl Nitrogen (mg N l^{-1})	0.66	0.94
NH_3-N (mg N l^{-1})	0.08	0.09
NO_2^- + NO_3^- - N (mg N l^{-1})	0.332	0.356
Dissolved Ortho-phosphate (mg P l^{-1})	0.018	0.025
Total Phosphorus (mg P l^{-1})	0.066	0.034

TABLE G-2

ALGAL GROWTH POTENTIAL

Cycle 3 Station 6 Date Collected 7/20/78 Date Processed 7/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	6.21	5.70	6.29	6.07 ± 0.64	5.92	5.84	5.35	5.70 ± 0.62	5.89 ± 0.69
LW+P	5.89	5.88	6.06	5.94 ± 0.20	6.52	6.01	5.83	6.12 ± 0.72	6.03 ± 0.51
LW+N	7.34	8.52	7.59	7.82 ± 1.24	7.22	7.41	7.91	7.51 ± 0.71	7.67 ± 0.97
LW+P+N	29.0	29.1	27.8	28.6 ± 1.45	30.5	33.7	32.4	32.2 ± 3.22	30.4 ± 4.50
LW+E	6.01	5.63	5.71	5.78 ± 0.40	5.78	6.11	5.68	5.86 ± 0.45	5.82 ± 0.39
LW+P+E	5.96	6.24	5.84	6.03 ± 0.47	5.80	6.15	5.85	5.93 ± 0.38	5.98 ± 0.39
LW+N+E	7.92	8.26	7.40	7.86 ± 0.87	8.28	8.38	8.15	8.27 ± 0.23	8.07 ± 0.72
LW+P+N+E	28.4	28.0	27.2	27.9 ± 1.22	28.7	28.3	30.5	29.2 ± 2.34	28.5 ± 2.20

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.3	7.3
Specific Conductance (umho cm^{-1})	76	80
Total Kjeldahl Nitrogen (mg N l^{-1})	0.49	0.43
NH_3-N (mg N l^{-1})	0.05	0.07
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	0.11	0.10
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.02
Total Phosphorus (mg P l^{-1})	0.10	0.06

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 7 Date Collected 7/20/78 Date Processed 7/21/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	6.50	6.29	5.91	6.23 ± 0.60	5.74	6.73	5.95	6.14 ± 1.04	6.19 ± 0.77
LW+P	6.01	6.09	5.98	6.03 ± 0.11	6.28	6.46	6.29	6.34 ± 0.20	6.19 ± 0.38
LW+N	12.0	9.48	10.4	10.6 ± 2.55	11.1	9.92	10.1	10.4 ± 1.27	10.5 ± 1.82
LW+P+N	32.3	33.3	36.0	33.9 ± 3.83	30.5	30.8	30.8	30.7 ± 0.35	32.3 ± 4.24
LW+E	6.24	6.31	6.37	6.34 ± 0.06	6.29	6.14	6.29	6.24 ± 0.17	6.29 ± 0.16
LW+P+E	6.29	6.36	6.61	6.42 ± 0.34	6.66	6.44	6.18	6.43 ± 0.48	6.42 ± 0.37
LW+N+E	11.4	11.4	10.1	11.0 ± 1.50	11.2	11.1	10.1	10.8 ± 1.22	10.9 ± 1.24
LW+P+N+E	31.3	29.1	31.4	30.6 ± 2.60	31.7	32.9	32.7	32.4 ± 1.29	31.5 ± 2.72

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.2	7.1
Specific Conductance (μmho cm^{-1})	80	85
Total Kjeldahl Nitrogen (mg N l^{-1})	0.48	0.83
NH_3-N (mg N l^{-1})	0.06	0.06
NO_2^- + NO_3^- - N (mg N l^{-1})	0.16	0.11
Dissolved Ortho-phosphate (mg P l^{-1})	0.01	0.02
Total Phosphorus (mg P l^{-1})	0.11	0.12

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 9 Date Collected 7/18/78 Date Processed 7/21/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	4.94	5.11	4.46	4.84 ± 0.68	5.34	4.85	4.95	5.05 ± 0.52	4.94 ± 0.58
LW+P	4.55	4.42	4.61	4.53 ± 0.19	4.69	4.89	4.44	4.67 ± 0.45	4.60 ± 0.35
LW+N	4.73	5.08	4.54	4.78 ± 0.55	4.85	4.56	4.64	4.69 ± 0.29	4.73 ± 0.41
LW+P+N	28.0	25.9	25.6	26.5 ± 2.62	26.2	26.9	25.5	26.2 ± 1.40	26.4 ± 1.90
LW+E	4.88	4.75	4.53	4.72 ± 0.35	4.70	4.86	4.72	4.76 ± 0.17	4.74 ± 0.25
LW+P+E	4.76	4.98	4.70	4.81 ± 0.29	4.66	4.48	4.40	4.51 ± 0.27	4.66 ± 0.41
LW+N+E	4.40	4.69	4.45	4.51 ± 0.31	4.65	4.82	4.41	4.63 ± 0.41	4.57 ± 0.35
LW+P+N+E	26.2	25.8	25.9	26.0 ± 0.42	25.0	24.8	25.6	25.1 ± 0.83	25.6 ± 1.09

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.7	7.6
Specific Conductance (μmho cm^{-1})	92	95
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.48	0.33
NH_3-N (mg N 1^{-1})	0.05	0.07
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.03	0.05
Dissolved Ortho-phosphate (mg P 1^{-1})	<0.01	0.01
Total Phosphorus (mg P 1^{-1})	0.14	0.11

TABLE G-2 (cont)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 10 Date Collected 7/18/78 Date Processed 7/20/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	3.42	3.51	3.43	3.45 ± 0.10	3.42	3.45	3.58	3.48 ± 0.17	3.47 ± 0.13
LW+P	3.95	4.10	3.84	3.96 ± 0.26	3.90	3.86	3.89	3.88 ± 0.04	3.92 ± 0.19
LW+N	14.6	14.6	14.5	14.57 ± 0.12	13.4	14.1	14.2	13.9 ± 0.87	14.23 ± 0.92
LW+P+N	35.8	37.4	36.8	36.7 ± 1.62	35.3	35.7	36.2	35.7 ± 0.91	36.2 ± 1.55
LW+E	3.28	3.40	3.39	3.36 ± 0.13	3.35	3.69	3.54	3.53 ± 0.17	3.44 ± 0.30
LW+P+E	3.89	3.84	3.92	3.88 ± 0.08	4.06	3.83	4.04	3.98 ± 0.25	3.93 ± 0.20
LW+N+E	14.7	15.3	14.6	14.9 ± 0.76	14.6	14.0	15.1	14.6 ± 1.10	14.7 ± 0.91
LW+P+N+E	37.0	36.7	36.1	36.6 ± 0.92	37.5	38.4	38.5	38.1 ± 1.10	37.4 ± 1.91

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.8	7.9
Specific Conductance (μmho cm^{-1})	93	100
Total Kjeldahl Nitrogen (mg N l^{-1})	0.58	0.49
NH_3-N (mg N l^{-1})	0.03	0.06
NO_2^- + NO_3^- - N (mg N l^{-1})	0.01	0.04
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.03
Total Phosphorus (mg P l^{-1})	0.11	0.12

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 11 Date Collected 7/18/78 Date Processed 7/20/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	5.54	5.70	5.72	5.65 ± 0.20	5.62	5.60	5.61	5.61 ± 0.02	5.63 ± 0.13
LW+P	5.76	5.66	5.92	5.78 ± 0.26	5.79	5.81	5.98	5.86 ± 0.21	5.82 ± 0.23
LW+N	7.59	7.45	7.45	7.50 ± 0.16	7.39	7.12	7.06	7.19 ± 0.35	7.34 ± 0.42
LW+P+N	29.2	28.7	28.8	28.9 ± 0.53	30.4	27.8	27.5	28.6 ± 3.19	28.7 ± 2.08
LW+E	5.66	5.56	5.82	5.68 ± 0.26	5.52	5.53	5.69	5.58 ± 0.19	5.63 ± 0.23
LW+P+E	5.81	5.93	5.99	5.91 ± 0.18	5.71	5.78	5.73	5.74 ± 0.07	5.83 ± 0.22
LW+N+E	7.26	7.27	7.36	7.30 ± 0.11	7.25	7.18	7.08	7.17 ± 0.17	7.23 ± 0.19
LW+P+N+E	29.4	29.3	29.3	29.3 ± 0.12	29.3	28.1	27.3	28.2 ± 1.01	28.8 ± 1.75

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.9	7.9
Specific Conductance (umho cm^{-1})	125	120
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.45	0.35
NH_3-N (mg N 1^{-1})	0.07	0.06
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.09	0.09
Dissolved Ortho-phosphate (mg P 1^{-1})	<0.01	0.02
Total Phosphorus (mg P 1^{-1})	0.06	0.12

TABLE G-2

ALGAL GROWTH POTENTIAL

Cycle 3 Station 12 Date Collected 7/19/78 Date Processed 7/20/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	2.41	2.39	2.40	2.40 ± 0.02	2.34	2.25	2.37	2.32 ± 0.12	2.36 ± 0.12
LW+P	3.66	3.83	3.69	3.73 ± 0.18	3.95	3.94	3.94	3.94 ± 0.01	3.84 ± 0.13
LW+N	2.12	2.15	2.07	2.11 ± 0.08	1.96	1.94	1.97	1.96 ± 0.03	2.04 ± 0.18
LW+P+N	23.3	24.0	23.2	23.5 ± 0.87	24.8	26.2	—	25.5 ± 1.98	24.3 ± 2.48
LW+E	2.27	—	—	2.27 ± 0.00	2.21	—	—	2.21 ± 0.00	2.24 ± 0.08
LW+P+E	3.74	3.73	—	3.74 ± 0.01	3.66	3.97	3.84	3.82 ± 0.31	3.79 ± 0.24
LW+N+E	2.04	2.16	—	2.10 ± 0.17	2.03	2.11	—	2.07 ± 0.11	2.09 ± 0.12
LW+P+N+E	23.1	23.7	23.2	23.3 ± 0.64	25.7	26.3	25.5	25.8 ± 0.83	24.6 ± 2.82

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.8	7.9
Specific Conductance (μmho cm^{-1})	90	95
Total Kjeldahl Nitrogen (mg N l^{-1})	0.36	0.41
NH_3-N (mg N l^{-1})	0.05	0.07
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	<0.01	0.03
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	<0.01
Total Phosphorus (mg P l^{-1})	0.03	0.03

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 13 Date Collected 7/17/78 Date Processed 7/18/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	5.06	5.15	4.93	5.04 ± 0.22	5.31	5.41	5.46	5.39 ± 0.15	5.22 ± 0.42
LW+P	9.17	9.30	9.36	9.28 ± 0.19	9.69	9.56	9.91	9.72 ± 0.35	9.50 ± 0.55
LW+N	4.88	5.16	5.26	5.10 ± 0.39	5.23	5.33	5.45	5.34 ± 0.22	5.22 ± 0.39
LW+P+N	26.6	27.6	27.1	27.1 ± 1.00	27.5	27.2	27.1	27.3 ± 0.41	27.2 ± 0.71
LW+E	5.30	5.27	—	5.29 ± 0.04	5.64	5.59	—	5.72 ± 0.08	5.45 ± 0.38
LW+P+E	9.77	9.48	—	9.63 ± 0.41	10.2	10.5	—	10.4 ± 0.42	9.99 ± 0.90
LW+N+E	5.10	5.12	—	5.11 ± 0.03	5.10	5.48	—	5.29 ± 0.54	5.20 ± 0.37
LW+P+N+E	26.0	27.0	—	26.5 ± 1.41	28.9	29.9	—	24.4 ± 1.41	28.0 ± 3.54

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	8.3	8.3
Specific Conductance (μmho cm^{-1})	155	160
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.47	0.43
NH_3-N (mg N 1^{-1})	0.08	0.09
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.14	0.16
Dissolved Ortho-phosphate (mg P 1^{-1})	0.01	0.01
Total Phosphorus (mg P 1^{-1})	0.06	<0.01

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 14 Date Collected 7/19/78 Date Processed 7/20/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	2.37	2.41	2.41	2.39 ± 0.08	2.38	2.36	2.51	2.42 ± 0.16	2.40 ± 0.12
LW+P	18.3	18.1	17.7	18.0 ± 0.61	17.6	17.8	18.8	18.1 ± 1.29	18.1 ± 0.90
LW+N	2.52	2.47	2.47	2.49 ± 0.06	2.56	2.62	2.36	2.51 ± 0.27	2.50 ± 0.18
LW+P+N	23.8	23.5	22.4	23.2 ± 1.47	26.0	26.3	27.0	26.4 ± 1.03	24.8 ± 3.68
LW+E	2.35	2.45	2.37	2.39 ± 0.11	2.43	2.63	2.57	2.54 ± 0.21	2.47 ± 0.22
LW+P+E	18.0	18.2	18.5	18.2 ± 0.50	19.8	19.7	19.1	19.5 ± 0.76	18.9 ± 1.54
LW+N+E	2.40	2.48	2.49	2.46 ± 0.10	2.30	2.38	2.28	2.32 ± 0.11	2.39 ± 0.18
LW+P+N+E	23.6	23.3	23.8	23.6 ± 0.50	25.2	24.1	23.6	24.3 ± 1.64	23.9 ± 1.35

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.9	7.9
Specific Conductance (μmho cm^{-1})	200	215
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.25	0.27
NH_3-N (mg N 1^{-1})	0.04	0.07
$NO_2^- + NO_3^-$ - N (mg N 1^{-1})	0.50	0.42
Dissolved Ortho-phosphate (mg P 1^{-1})	<0.01	<0.01
Total Phosphorus (mg P 1^{-1})	0.10	0.08

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 15 Date Collected 7/17/78 Date Processed 7/18/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	5.29	5.12	5.20	5.20 ± 0.17	5.09	5.04	5.20	5.11 ± 0.16	5.16 ± 0.18
LW+P	15.7	16.0	15.7	15.8 ± 0.35	16.2	15.6	16.6	16.1 ± 1.01	16.0 ± 0.77
LW+N	5.37	5.53	5.58	5.49 ± 0.22	5.25	5.55	5.30	5.37 ± 0.32	5.43 ± 0.28
LW+P+N	28.3	28.3	26.1	27.6 ± 2.54	29.6	29.0	30.8	29.8 ± 1.83	28.7 ± 3.15
LW+E	5.33	5.35	—	5.34 ± 0.03	5.25	5.38	—	5.32 ± 0.18	5.33 ± 0.11
LW+P+E	15.7	15.9	—	15.8 ± 0.28	16.1	16.0	—	16.1 ± 0.14	15.9 ± 0.34
LW+N+E	5.65	5.68	—	5.67 ± 0.04	5.35	5.35	—	5.35 ± 0.00	5.51 ± 0.36
LW+P+N+E	28.8	29.2	—	29.0 ± 0.57	29.4	30.0	—	29.7 ± 0.85	29.4 ± 1.00

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	8.6	8.6
Specific Conductance (μmho cm^{-1})	160	175
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.57	0.41
NH_3-N (mg N 1^{-1})	0.08	0.10
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.28	0.30
Dissolved Ortho-phosphate (mg P 1^{-1})	<0.01	0.01
Total Phosphorus (mg P 1^{-1})	0.12	

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 16 Date Collected 7/17/78 Date Processed 7/18/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	15.3	13.7	14.1	14.4 ± 1.67	14.4	15.1	15.4	15.0 ± 1.03	14.7 ± 1.40
LW+P	29.1	30.4	28.3	29.3 ± 2.12	32.3	31.6	31.1	31.7 ± 1.21	30.5 ± 3.03
LW+N	15.2	15.3	15.4	15.3 ± 0.20	15.3	14.5	15.4	15.1 ± 0.99	15.2 ± 0.69
LW+P+N	35.9	37.6	36.9	36.8 ± 1.71	38.0	39.6	33.3	37.0 ± 6.55	36.9 ± 4.28
LW+E	14.8	14.5	15.5	14.9 ± 1.03	14.9	15.7	13.5	14.7 ± 2.23	14.8 ± 1.57
LW+P+E	28.8	29.9	28.7	29.1 ± 1.33	29.5	32.1	33.9	31.8 ± 4.42	30.5 ± 4.16
LW+N+E	13.9	14.9	14.8	14.5 ± 1.10	15.9	14.6	14.6	15.0 ± 1.50	14.8 ± 1.30
LW+P+N+E	37.1	37.8	36.6	37.2 ± 1.21	35.1	35.7	38.8	36.5 ± 3.97	36.9 ± 2.72

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.6	7.6
Specific Conductance (μmho cm^{-1})	145	150
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.39	0.35
NH_3-N (mg N 1^{-1})	0.05	0.06
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.57	0.65
Dissolved Ortho-phosphate (mg P 1^{-1})	0.03	0.05
Total Phosphorus (mg P 1^{-1})	0.08	0.02

TABLE G-2 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 3 Station 18 Date Collected 7/18/78 Date Processed 7/20/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	5.56	5.81	5.73	5.70 ± 0.26	5.74	5.50	5.95	5.73 ± 0.45	5.72 ± 0.33
LW+P	18.2	18.2	17.9	18.1 ± 0.35	19.3	18.5	18.4	18.7 ± 0.99	18.4 ± 0.96
LW+N	5.73	5.67	5.79	5.73 ± 0.12	5.85	5.77	5.98	5.87 ± 0.21	5.80 ± 0.21
LW+P+N	26.7	26.6	27.8	27.0 ± 1.33	28.6	28.2	28.2	28.3 ± 0.46	27.7 ± 1.68
LW+E	5.73	5.67	5.64	5.68 ± 0.09	5.65	5.54	5.57	5.59 ± 0.11	5.63 ± 0.14
LW+P+E	18.1	18.3	17.7	18.0 ± 0.61	18.1	18.6	18.4	18.4 ± 0.50	18.2 ± 0.62
LW+N+E	5.79	5.35	5.77	5.64 ± 0.50	5.70	5.81	5.98	5.83 ± 0.28	5.73 ± 0.42
LW+P+N+E	29.0	28.3	28.2	28.5 ± 0.86	26.9	26.7	28.7	27.4 ± 2.20	28.0 ± 1.90

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.5	7.5
Specific Conductance (μmho cm^{-1})	120	135
Total Kjeldahl Nitrogen (mg N l^{-1})	0.47	0.35
NH_3-N (mg N l^{-1})	0.08	0.07
NO_2^- + NO_3^- - N (mg N l^{-1})	0.12	0.41
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.01
Total Phosphorus (mg P l^{-1})	0.14	0.11

ALGAL GROWTH POTENTIAL

Cycle 5 Station 6

Date Collected 9/27/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	8.28	8.53	7.57	8.13 ± 1.00	7.65	6.68	7.22	7.18 ± 0.97	7.66 ± 1.36
LW+P	9.86	9.63	9.98	9.82 ± 0.36	8.54	11.3	11.8	10.5 ± 3.51	10.2 ± 2.37
LW+N	8.65	8.32	8.90	8.62 ± 0.58	9.83	9.03	8.09	8.98 ± 1.74	8.80 ± 1.23
LW+P+N	29.7	31.1	29.9	30.2 ± 1.51	32.8	31.0	30.8	31.5 ± 2.20	30.9 ± 2.21
LW+E	7.54	8.43	8.39	8.12 ± 1.01	8.72	9.51	9.31	9.18 ± 0.82	8.65 ± 1.42
LW+P+E	11.1	8.99	7.21	9.10 ± 3.89	10.6	8.51	9.72	9.61 ± 2.10	9.36 ± 2.85
LW+N+E	7.22	8.43	7.83	7.83 ± 1.21	8.67	8.32	8.77	8.59 ± 0.47	8.21 ± 1.17
LW+P+N+E	38.3	38.6	43.7	40.2 ± 6.07	35.9	34.8	34.0	34.9 ± 1.91	37.6 ± 7.06

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.50	7.50
Specific Conductance (μmho cm^{-1})	100	108
Total Kjeldahl Nitrogen (mg N l^{-1})	0.5	0.4
NH_3-N (mg N l^{-1})	0.05	0.10
NO_2^- + NO_3^- - N (mg N l^{-1})	0.13	0.16
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.02
Total Phosphorus (mg P l^{-1})	0.05	0.03

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

TABLE G-3

ALGAL GROWTH POTENTIAL

Cycle 5 Station 7 Date Collected 9/27/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate			$\bar{x} \pm 2\sigma$	Replicate			$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
	1	2	3		1	2	3		
LW	7.98	7.93	8.55	8.15 ± 0.69	8.05	8.08	9.19	8.44 ± 1.30	8.27 ± 1.04
LW+P	7.50	7.45	8.23	7.73 ± 0.87	8.80	8.87	10.2	9.29 ± 1.58	8.51 ± 2.06
LW+N	14.0	15.9	17.0	15.6 ± 3.04	16.4	15.4	14.6	15.5 ± 2.00	15.6 ± 2.24
LW+P+N	44.5	43.2	42.3	43.5 ± 1.78	40.4	39.9	40.0	40.1 ± 0.53	41.8 ± 3.90
LW+E	7.04	8.61	8.05	7.90 ± 1.59	7.93	8.44	7.83	8.07 ± 0.65	7.98 ± 1.10
LW+P+E	8.21	7.80	8.13	8.05 ± 0.43	9.15	10.0	8.34	9.33 ± 1.20	8.69 ± 1.62
LW+N+E	14.4	15.0	14.4	14.6 ± 0.69	15.0	16.1	15.2	15.4 ± 1.17	15.0 ± 1.25
LW+P+N+E	30.5	32.7	30.9	31.4 ± 2.34	42.1	38.6	39.2	40.0 ± 3.74	35.7 ± 9.83

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.20	7.20
Specific Conductance (μmho cm^{-1})	95	100
Total Kjeldahl Nitrogen (mg N l^{-1})	0.5	0.4
NH_3-N (mg N l^{-1})	<0.01	0.06
NO_2^- + NO_3^- - N (mg N l^{-1})	0.12	0.15
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.01
Total Phosphorus (mg P l^{-1})	0.04	0.03

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 9 Date Collected 9/26/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	4.77	4.41	4.11	4.43 ± 0.66	4.34	4.42	4.30	4.35 ± 0.12	4.39 ± 0.44
LW+P	3.93	4.15	4.33	4.14 ± 0.40	4.11	4.72	4.21	4.35 ± 0.65	4.24 ± 0.54
LW+N	25.1	24.8	22.4	24.1 ± 2.96	26.3	23.0	24.0	24.4 ± 3.38	24.3 ± 2.87
LW+P+N	48.9	47.6	49.9	48.8 ± 2.31	50.3	48.6	50.8	49.9 ± 2.31	49.4 ± 2.39
LW+E	4.39	4.42	4.05	4.29 ± 0.41	4.60	4.77	5.15	4.84 ± 0.56	4.56 ± 0.75
LW+P+E	4.33	4.77	3.96	4.35 ± 0.81	4.34	4.38	4.39	4.37 ± 0.05	4.36 ± 0.51
LW+N+E	22.8	21.9	24.3	23.0 ± 2.42	24.0	24.3	24.6	24.3 ± 0.08	23.5 ± 2.27
LW+P+N+E	46.6	45.9	52.8	48.4 ± 7.60	55.8	50.5	52.0	52.8 ± 5.46	50.6 ± 7.59

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.30	7.40
Specific Conductance (umho cm^{-1})	95	100
Total Kjeldahl Nitrogen (mg N l^{-1})	0.6	0.4
NH_3-N (mg N l^{-1})	<0.01	0.04
NO_2^- + NO_3^- - N (mg N l^{-1})	0.08	0.08
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.01
Total Phosphorus (mg P l^{-1})	0.04	0.05

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 10 Date Collected 9/26/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	2.70	3.36	3.56	3.21 ± 0.90	3.32	2.81	2.95	3.03 ± 0.53	3.12 ± 0.69
LW+P	3.54	3.28	3.05	3.29 ± 0.49	3.13	3.07	3.30	3.17 ± 0.24	3.23 ± 0.37
LW+N	4.89	5.13	4.67	4.90 ± 0.46	4.69	4.74	4.73	4.72 ± 0.05	4.81 ± 0.35
LW+P+N	28.9	27.0	29.2	28.4 ± 2.39	32.2	31.0	32.5	31.9 ± 1.59	30.1 ± 4.27
LW+E	3.27	3.20	2.99	3.15 ± 0.29	2.45	2.70	2.43	2.53 ± 0.30	2.84 ± 0.74
LW+P+E	2.43	2.94	2.81	2.73 ± 0.53	2.76	2.76	2.67	2.73 ± 0.10	2.73 ± 0.34
LW+N+E	4.11	4.78	4.55	4.48 ± 0.68	4.90	4.66	4.70	4.75 ± 0.26	4.62 ± 0.55
LW+P+N+E	35.0	36.3	38.2	36.5 ± 3.22	34.2	28.5	32.7	31.8 ± 5.91	34.2 ± 6.68

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.70	7.85
Specific Conductance (μmho cm^{-1})	90	92
Total Kjeldahl Nitrogen (mg N l^{-1})	0.7	0.4
NH_3-N (mg N l^{-1})	<0.01	0.04
NO_2^- + NO_3^- - N (mg N l^{-1})	0.04	0.04
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.01
Total Phosphorus (mg P l^{-1})	0.02	0.03

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 11 Date Collected 9/26/78 Date Processed 9/28/78

Growth Response, mg/1 Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	3.03	2.77	2.77	2.86 ± 0.30	2.76	2.72	2.80	2.76 ± 0.08	2.81 ± 0.22
LW+P	2.72	2.89	2.90	2.84 ± 0.20	3.14	3.14	3.07	3.12 ± 0.08	2.98 ± 0.34
LW+N	9.11	8.38	8.21	8.57 ± 0.96	10.8	11.9	10.7	11.1 ± 1.33	9.85 ± 3.00
LW+P+N	30.7	30.2	30.1	30.3 ± 0.64	33.8	31.9	34.2	33.3 ± 2.46	31.8 ± 3.63
LW+E	2.89	3.04	2.62	2.85 ± 0.93	2.83	2.67	2.54	2.68 ± 0.29	2.77 ± 0.38
LW+P+E	2.66	2.73	2.92	2.77 ± 0.27	3.29	3.44	3.46	3.40 ± 0.19	3.08 ± 0.72
LW+N+E	8.22	7.96	7.73	7.97 ± 0.49	8.64	8.51	8.56	8.57 ± 0.13	8.27 ± 0.73
LW+P+N+E	27.6	30.6	32.2	30.1 ± 4.67	32.6	37.1	33.6	34.4 ± 4.73	32.3 ± 6.31

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	8.10	8.10
Specific Conductance (μmho cm^{-1})	135	130
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.7	0.4
NH_3-N (mg N 1^{-1})	<0.01	0.03
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.04	0.04
Dissolved Ortho-phosphate (mg P 1^{-1})	0.01	0.02
Total Phosphorus (mg P 1^{-1})	0.05	0.02

LW = Lake Water
P = 0.05 mg/1 P spike
N = 1.00 mg/1 N spike
E = 1.00 mg/1 EDTA spike

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 12 Date Collected 9/26/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	1.36	1.36	1.36	1.36 ± 0.00	1.51	1.59	1.45	1.52 ± 0.14	1.44 ± 0.19
LW+P	1.33	1.36	1.31	1.33 ± 0.05	1.32	1.42	1.26	1.33 ± 0.16	1.33 ± 0.11
LW+N	2.24	2.12	2.11	2.16 ± 0.14	2.40	2.57	2.83	2.60 ± 0.43	2.38 ± 0.57
LW+P+N	24.3	25.4	26.7	25.5 ± 2.40	25.2	23.4	24.1	24.2 ± 1.81	24.9 ± 2.33
LW+E	1.25	1.25	1.33	1.28 ± 0.09	1.49	1.39	1.34	1.41 ± 0.15	1.34 ± 0.18
LW+P+E	1.27	2.25	1.24	1.59 ± 1.15	1.46	1.42	1.29	1.39 ± 0.18	1.49 ± 0.77
LW+N+E	2.51	2.67	2.67	2.62 ± 0.18	2.70	2.96	2.94	2.87 ± 0.29	2.74 ± 0.35
LW+P+N+E	25.4	26.0	22.6	24.7 ± 3.63	27.6	29.4	27.4	28.1 ± 2.20	26.4 ± 4.65

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	8.40	8.30
Specific Conductance (umho cm^{-1})	95	90
Total Kjeldahl Nitrogen (mg N l^{-1})	0.6	0.4
NH_3-N (mg N l^{-1})	<0.02	0.02
NO_2^- + NO_3^- - N (mg N l^{-1})	<0.01	<0.01
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	<0.01
Total Phosphorus (mg P l^{-1})	0.01	0.01

TABLE G-3 (cont.)
ALGAL GROWTH POTENTIAL

Cycle 5 Station 13 Date Collected 9/25/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	5.20	4.60	4.63	4.81 ± 0.68	4.73	4.54	4.90	4.72 ± 0.36	4.77 ± 0.49
LW+P	6.92	7.61	8.09	7.54 ± 1.18	9.01	9.08	7.63	8.57 ± 1.64	8.06 ± 1.70
LW+N	4.71	4.55	4.73	4.66 ± 0.20	4.32	4.47	4.82	4.54 ± 0.51	4.60 ± 0.37
LW+P+N	27.4	27.7	27.6	27.6 ± 0.31	30.6	29.6	30.5	30.2 ± 1.10	28.9 ± 3.01
LW+E	4.58	4.90	4.74	4.74 ± 0.32	4.55	4.55	4.73	4.61 ± 0.21	4.68 ± 0.28
LW+P+E	7.44	8.07	7.79	7.77 ± 0.63	9.21	8.13	8.93	8.76 ± 1.12	8.26 ± 1.36
LW+N+E	4.67	4.57	4.43	4.56 ± 0.24	4.22	4.54	4.43	4.40 ± 0.33	4.48 ± 0.31
LW+P+N+E	31.6	31.1	30.6	31.1 ± 1.00	37.6	31.9	31.5	31.7 ± 6.82	32.4 ± 5.19

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	9.00	9.10
Specific Conductance (μmho cm^{-1})	165	178
Total Kjeldahl Nitrogen (mg N l^{-1})	0.5	0.4
NH_3-N (mg N l^{-1})	0.04	0.02
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	0.15	0.16
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	0.01
Total Phosphorus (mg P l^{-1})	0.04	0.04

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 14 Date Collected 9/27/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	2.26	2.16	2.22	2.21 ± 0.10	2.25	1.67	2.09	2.00 ± 0.60	2.11 ± 0.45
LW+P	16.6	17.1	18.0	17.2 ± 1.42	16.0	16.7	17.0	16.6 ± 1.03	16.9 ± 1.33
LW+N	2.43	2.28	2.27	2.33 ± 0.18	2.49	2.52	2.76	2.59 ± 0.30	2.45 ± 0.38
LW+P+N	23.7	25.0	24.3	24.3 ± 1.30	27.0	25.9	25.5	26.1 ± 1.55	25.2 ± 2.35
LW+E	2.29	2.34	2.27	2.30 ± 0.07	2.40	2.31	2.11	2.27 ± 0.30	2.29 ± 0.20
LW+P+E	16.4	16.9	15.9	16.4 ± 1.00	16.2	16.0	17.5	16.6 ± 1.63	16.5 ± 1.22
LW+N+E	2.02	1.94	2.09	2.02 ± 0.15	1.29	1.34	1.32	1.32 ± 0.05	1.66 ± 0.77
LW+P+N+E	24.9	24.6	24.4	24.6 ± 0.50	28.3	28.6	29.9	28.9 ± 1.70	26.8 ± 4.84

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.50	7.50
Specific Conductance (μmho cm^{-1})	210	200
Total Kjeldahl Nitrogen (mg N l^{-1})	0.3	0.2
NH_3-N (mg N l^{-1})	0.01	<0.01
$NO_2^- + NO_3^-$ - N (mg N l^{-1})	0.37	0.38
Dissolved Ortho-phosphate (mg P l^{-1})	<0.01	<0.01
Total Phosphorus (mg P l^{-1})	0.01	0.01

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 15 Date Collected 9/25/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	9.48	9.15	8.63	9.09 ± 0.86	9.36	8.34	8.70	8.80 ± 1.03	8.94 ± 0.91
LW+P	13.9	14.8	15.1	14.6 ± 1.25	15.1	17.8	16.4	16.4 ± 2.70	15.5 ± 2.75
LW+N	10.4	10.7	9.80	10.3 ± 0.92	10.2	9.63	8.99	9.63 ± 1.21	9.96 ± 1.21
LW+P+N	33.7	34.2	31.0	33.0 ± 3.44	28.9	28.7	30.4	29.3 ± 1.86	31.2 ± 4.69
LW+E	7.22	6.93	7.89	7.35 ± 0.98	9.08	8.29	8.66	8.68 ± 0.79	8.01 ± 1.66
LW+P+E	16.0	15.9	16.6	16.2 ± 0.76	16.4	16.4	15.5	16.1 ± 1.04	16.1 ± 0.82
LW+N+E	8.34	9.44	8.78	8.85 ± 1.11	8.85	8.14	8.39	8.46 ± 0.72	8.66 ± 0.94
LW+P+N+E	31.5	32.6	32.1	32.1 ± 1.10	29.8	31.4	27.7	29.6 ± 3.71	30.9 ± 3.62

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	8.40	8.30
Specific Conductance (umho cm^{-1})	162	170
Total Kjeldahl Nitrogen (mg N 1^{-1})	0.5	0.3
NH_3-N (mg N 1^{-1})	<0.02	0.12
NO_2^- + NO_3^- - N (mg N 1^{-1})	0.12	0.25
Dissolved Ortho-phosphate (mg P 1^{-1})	0.01	0.02
Total Phosphorus (mg P 1^{-1})	0.05	0.04

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 16 Date Collected 9/25/78 Date Processed 9/28/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	24.8	21.7	23.0	23.2 ± 3.11	28.2	22.3	23.2	24.6 ± 6.36	23.9 ± 4.73
LW+P	21.9	23.9	23.4	23.1 ± 2.09	22.7	21.5	22.8	22.3 ± 1.45	22.7 ± 1.79
LW+N	30.2	29.6	32.0	30.6 ± 2.50	32.0	29.1	31.8	31.0 ± 3.24	30.8 ± 2.62
LW+P+N	53.4	59.9	48.2	53.8 ±11.7	57.7	56.8	58.9	57.8 ± 2.11	55.8 ± 8.70
LW+E	26.8	24.9	25.8	25.8 ± 1.90	22.4	23.0	23.9	23.1 ± 1.51	24.5 ± 3.36
LW+P+E	27.7	23.4	22.9	24.7 ± 5.28	24.8	26.0	27.0	25.9 ± 2.20	25.3 ± 3.87
LW+N+E	34.0	32.7	37.8	34.8 ± 5.30	31.1	33.7	35.0	33.3 ± 3.97	34.1 ± 4.53
LW+P+N+E	62.5	60.9	59.0	60.8 ± 3.50	52.6	59.4	56.6	56.2 ± 6.84	58.5 ± 7.00

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	8.20	8.00
Specific Conductance (umho cm^{-1})	145	150
Total Kjeldahl Nitrogen (mg N l^{-1})	0.5	0.5
NH_3-N (mg N l^{-1})	0.05	0.05
NO_2^- + NO_3^- - N (mg N l^{-1})	0.53	0.52
Dissolved Ortho-phosphate (mg P l^{-1})	0.04	0.07
Total Phosphorus (mg P l^{-1})	0.09	0.15

TABLE G-3 (cont.)

ALGAL GROWTH POTENTIAL

Cycle 5 Station 18 Date Collected 9/26/78 Date Processed 9/26/78

Growth Response, mg/l Ash-Free Dry Wt.

Treatment	12 Day Count				14 Day Count				Overall
	Replicate				Replicate				
	1	2	3	$\bar{x} \pm 2\sigma$	1	2	3	$\bar{x} \pm 2\sigma$	$\bar{x} \pm 2\sigma$
LW	3.35	3.28	3.26	3.30 ± 0.09	3.51	3.14	3.17	3.27 ± 0.41	3.29 ± 0.27
LW+P	3.29	3.40	3.31	3.33 ± 0.12	3.08	3.26	3.24	3.19 ± 0.20	3.26 ± 0.21
LW+N	9.61	8.94	8.80	9.12 ± 0.87	9.38	10.4	9.76	9.85 ± 1.03	9.48 ± 1.17
LW+P+N	37.0	39.5	36.4	37.6 ± 3.29	34.1	33.3	34.2	33.9 ± 0.99	35.8 ± 4.66
LW+E	3.35	3.23	3.71	3.43 ± 0.50	3.43	3.23	3.08	3.25 ± 0.35	3.34 ± 0.44
LW+P+E	3.46	3.46	3.39	3.44 ± 0.08	3.21	3.11	3.20	3.17 ± 0.11	3.31 ± 0.30
LW+N+E	10.4	9.83	9.45	9.89 ± 0.96	9.44	9.62	9.28	9.45 ± 0.34	9.67 ± 0.81
LW+P+N+E	35.2	35.2	37.2	35.9 ± 2.31	35.5	33.3	32.9	33.9 ± 2.80	34.9 ± 3.15

LW = Lake Water
P = 0.05 mg/l P spike
N = 1.00 mg/l N spike
E = 1.00 mg/l EDTA spike

Background Water Quality

Parameter and Units	Before Processing	After Processing
pH	7.50	7.55
Specific Conductance (μmho cm^{-1})	135	140
Total Kjeldahl Nitrogen (mg N l^{-1})	0.6	0.3
NH_3-N (mg N l^{-1})	0.03	0.03
NO_2^- + NO_3^- - N (mg N l^{-1})	0.05	0.05
Dissolved Ortho-phosphate (mg P l^{-1})	0.01	0.02
Total Phosphorus (mg P l^{-1})	0.04	0.02

APPENDIX H

PHYTOPLANKTON DATA

LIST OF TABLES

TABLE H-1a

**LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML) **

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CYANOPHYCEAE										
ANABAENA SP	-	-	73	-	-	-	-	-	-	-
APHANOCAPSA DELICATISSIMA	-	-	-	-	-	-	-	-	-	-
APHANOTHECE NIDULANS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS DISPERSUS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS DISPERSUS V MINOR	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS MINIMUS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS MINUTUS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS SP	-	-	-	-	-	29	31	-	-	8
GLOEOCAPSA SP	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA TENUISSIMA	-	-	-	-	-	-	-	-	67	-
MICROCYSTIS INCERTA	-	-	-	-	188	-	-	276	-	-
OSCILLATORIA SP	-	-	-	-	-	59	-	-	-	-
SPIRULINA SP	-	-	-	-	-	-	-	-	-	-
CHLOROPHYCEAE										
ANKISTRODESMUS CONVOLUTUS	-	-	-	-	-	-	-	-	-	-
ANKISTRODESMUS FALCATUS	-	-	-	-	7	-	4	-	4	-
ANKISTRODESMUS NANNOSELENE	-	-	9	-	4	6	8	-	4	-
ANKISTRODESMUS SPIRALIS	-	-	4	-	7	3	-	4	8	-
CHARACIUM AMBIGUUM	25	5	-	-	7	-	-	-	-	-
CHLAMYDOMONAS SP	-	-	-	-	-	6	8	-	-	-
CHLORELLA SP	-	10	-	5	-	-	-	7	-	-
CHLOROCOCCUM HUMICOLA	-	-	-	-	-	-	-	-	-	-
CLOSTERIUM SP	-	-	-	-	-	-	-	-	-	-
COELASTRUM CAMBRICUM	-	-	-	-	-	-	-	-	-	-
COELASTRUM MICROPORUM	-	-	540	-	-	-	-	4	33	-
COELASTRUM MORUS	-	-	-	-	-	-	-	-	-	-

TABLE H-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
COELASTRUM PROBOSCIDEUM	57	-	-	-	-	-	-	-	-	-
COSMARIUM SP	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA APICULATA	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA FENESTRATA	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA QUADRATA	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA TETRAPEDIA	-	-	17	-	-	-	-	-	-	-
DICTYOSPHAERIUM PULCHELLUM	-	-	-	-	-	-	-	-	33	-
GOLENKINIA RADIATA	-	-	-	-	-	-	-	-	-	-
KIRCHNERIELLA LUNARIS	-	-	4	-	-	-	-	-	-	-
KIRCHNERIELLA OBESA	-	-	-	-	-	-	-	-	-	-
KIRCHNERIELLA SOLITARIA	-	-	-	-	-	-	-	-	-	-
OOCYSTIS SP	6	5	4	5	-	-	-	-	8	-
PEDIASTRUM DUPLEX	-	-	-	10	-	-	-	-	-	-
PEDIASTRUM OBTUSUM	57	-	-	-	-	-	-	-	-	-
PEDIASTRUM SIMPLEX	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM TETRAS V TETRAODON	-	-	-	-	-	-	-	-	-	-
SCENEDESMUS ABUNDANS	25	-	17	-	15	26	-	21	17	15
SCENEDESMUS ACUMINATUS	-	-	-	-	-	-	-	-	-	-
SCENEDESMUS ARMATUS	76	77	17	31	15	39	35	36	67	104
SCENEDESMUS ARMATUS V BICAUDATA	-	-	17	20	15	20	-	-	-	-
SCENEDESMUS BIJUGA	-	-	-	-	-	-	-	-	-	-
SCENEDESMUS DENTICULATUS	-	-	-	-	-	-	-	-	-	8
SCENEDESMUS QUADRICAUDA	164	126	77	82	63	33	38	68	25	46
SCHROEDERIA SETIGERA	-	-	-	-	-	6	-	-	4	-
SELENASTRUM MINUTUM	-	-	-	-	-	-	-	-	-	-
STAURASTRUM SP	-	-	4	5	4	-	4	4	-	-
TETRAEDRON CAUDATUM	-	-	-	-	-	-	-	-	-	-
TETRAEDRON MINIMUM	-	-	-	-	-	-	-	-	4	-
TETRAEDRON REGULARE	-	-	-	-	-	-	-	-	-	-
TETRASTRUM ELEGANS	-	-	-	-	-	-	-	-	-	-
TETRASTRUM STAUROGENIFORME	-	-	-	-	-	13	-	-	-	-
CRYPTOPHYCEAE										
CRYPTOMONAS SP	-	-	-	-	-	-	-	-	-	-

TABLE H-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
DINOPHYCEAE										
CERATIUM HIRUNDINELLA	-	-	-	-	-	-	-	-	-	-
PERIDINIUM SP	-	-	-	-	-	-	-	-	-	-
XANTHOPHYCEAE										
OPHIOCYTIUM CAPITATUM V LONGISPINUM	-	-	-	-	-	-	-	-	-	-
CHRYSOPHYCEAE										
DINOBRYON DIVERGENS	-	-	-	-	-	-	-	-	-	-
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES CLEVEI	-	-	-	-	-	-	-	-	-	-
ACHNANTHES LANCEOLATA	-	-	-	-	-	-	-	-	-	-
ACHNANTHES LANCEOLATA V DUBIA	-	19	-	-	-	-	8	-	4	-
ACHNANTHES SP	-	-	-	-	-	-	-	-	-	-
AMPHIPLEURA PELLUCIDA	-	-	-	-	-	-	-	-	-	-
AMPHORA PERPUSILLA	-	-	9	-	-	-	4	-	-	-
ANOMOEONEIS EXILIS	-	-	-	-	-	-	-	-	-	-
ASTERIONELLA FORMOSA	258	363	81	164	66	294	165	172	146	138
COCCONEIS DISCULUS	-	-	-	-	-	-	-	-	-	-
COCCONEIS PEDICULUS	-	-	-	-	-	-	-	-	-	-
COCCONEIS PLACENTULA	-	-	-	-	-	-	-	-	-	-
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	-	-	-	-	-	-	-

TABLE H-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CYCLOTELLA CATENATA	19	12	17	10	4	3	-	-	12	15
CYCLOTELLA GLOMERATA	-	14	13	31	4	29	8	11	50	38
CYCLOTELLA MENEGHINIANA	-	-	-	-	-	-	-	-	4	-
CYCLOTELLA STELLIGERA	69	19	9	15	-	20	31	21	33	38
CYMBELLA DELICATULA	6	-	-	5	-	-	-	-	-	-
CYMBELLA LEPTOCEROS	-	-	-	-	-	-	-	-	-	-
CYMBELLA MICROCEPHALA	-	-	-	-	-	-	-	-	-	-
CYMBELLA MINUTA	-	-	-	-	-	-	-	-	-	-
CYMBELLA PUSILLA	-	-	-	5	-	-	-	-	-	-
CYMBELLA TUMIDA	-	-	-	-	-	-	-	-	-	-
CYMBELLA SP	-	-	-	5	-	-	-	-	-	-
EUNOTIA CURVATA	-	-	-	-	-	-	-	4	-	-
EUNOTIA TENELLA	-	-	-	-	-	-	-	-	-	-
EUNOTIA SP	-	-	-	-	-	3	-	-	-	-
FRAGILARIA BREVISTRIATA	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CAPUCINA	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CAPUCINA V MESOLEPTA	6	-	-	10	-	-	-	-	-	-
FRAGILARIA CONSTRUENS	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CROTONENSIS	-	-	-	-	7	-	-	4	-	-
FRAGILARIA LEPTOSTAURON	-	-	-	-	-	3	-	7	-	-
FRAGILARIA PINNATA	-	-	-	-	-	-	-	-	-	-
FRUSTULIA RHOMBOIDES	-	-	4	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	-	-	-	-	-	-	-	4	4	-
GOMPHONEMA SP	-	-	-	5	-	-	-	-	-	-
GYROSIGMA ACUMINATUM	-	-	-	-	-	-	-	-	-	-
GYROSIGMA SP	-	-	-	-	-	-	-	-	-	-
MELOSIRA AMBIGUA	50	44	26	31	26	10	65	64	50	42
MELOSIRA DISTANS	2250	1656	1560	1733	1377	1062	1288	1175	1682	1481
MELOSIRA GRANULATA	57	34	13	56	37	6	8	18	8	27
MELOSIRA GRANULATA V ANGUSTISSIMA	13	-	5	31	-	13	23	25	8	8
MELOSIRA VARIANS	-	-	-	-	-	6	-	-	4	-
NAVICULA CRYPTOCEPHALA	-	-	-	5	-	10	4	11	12	11
NAVICULA EXIGUA V CAPITATA	-	-	-	-	-	-	-	-	-	-
NAVICULA FRACTA	-	-	-	-	-	-	-	-	-	-
NAVICULA GASTRUM	-	-	-	-	4	-	-	-	-	-
NAVICULA GREGARIA	-	5	-	-	-	-	-	-	-	-
NAVICULA LATENS	-	-	-	-	-	-	-	-	-	4
NAVICULA LATEROPUNCTATA	-	-	-	-	-	-	-	-	-	-
NAVICULA PUPULA	6	-	-	-	7	3	4	4	4	-
NAVICULA SALINARIUM V INTERMEDIA	6	5	-	5	-	3	-	-	-	4
NAVICULA SP	-	5	4	5	-	6	-	-	-	-
NITZSCHIA ACICULARIS	25	14	4	-	7	-	8	4	-	-

TABLE H-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
NITZSCHIA AMPHIBIA	6	-	-	-	-	-	-	-	-	-
NITZSCHIA COMMUNIS	-	-	-	-	-	3	-	-	-	-
NITZSCHIA GRACILIS	-	-	-	-	-	-	-	-	4	-
NITZSCHIA KUTZINGIANA	6	5	-	-	4	6	8	-	-	-
NITZSCHIA OBTUSA V SCALPELLIFORMIS	6	14	-	-	-	-	-	-	-	-
NITZSCHIA PALEA	19	5	-	5	4	-	-	-	4	-
NITZSCHIA PALEACEA	-	-	9	5	4	-	-	-	-	-
NITZSCHIA SP	-	-	-	-	-	6	15	11	8	-
OPEPHORA MARTYI	-	-	-	-	-	-	-	-	4	-
PINNULARIA SP	-	-	-	-	-	3	4	4	-	-
STEPHANODISCUS SP	-	-	-	-	-	-	-	-	-	-
SURIRELLA ATOMUS	6	-	-	5	-	-	-	-	-	-
SURIRELLA SP	-	-	-	-	-	-	4	-	-	-
SYNEDRA CAPITATA	-	-	-	-	-	-	-	-	-	-
SYNEDRA DELICATISSIMA	6	5	-	-	-	-	-	4	-	-
SYNEDRA RUMPENS	-	-	-	-	-	-	-	-	4	-
SYNEDRA RUMPENS V FAMILIARIS	-	-	-	-	-	-	-	7	-	-
SYNEDRA ULNA	-	-	-	-	-	3	8	-	4	-
TABELLARIA FLOCCULOSA V FLOCCULOSA	-	-	-	-	4	-	-	-	-	-
EUGLENOPHYCEAE										
EUGLENA SP	-	10	-	10	4	-	-	4	-	-
PHACUS SP	-	-	-	-	-	-	-	-	-	-
TRACHELOMONAS SP	6	-	-	-	-	-	-	-	-	-
CILIOPHORA										
STROBILIDIUM GYRANS	-	-	-	-	-	-	-	-	-	4
UNID CILIOPHORA	-	-	-	-	-	6	4	-	8	4
TOTAL NUMBER OF ORGANISMS	3230	2450	2541	2299	1884	1738	1807	1974	2331	1995
NUMBER OF TAXA	26	22	25	27	25	32	25	27	33	18

TABLE H-1b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
CYANOPHYCEAE										
ANABAENA SP	-	-	-	-	-	-	-	-	-	*******
APHANOCAPSA DELICATISSIMA	-	74	-	-	-	17	-	-	-	*******
APHANOTHECE NIDULANS	-	176	-	-	-	-	-	-	-	*******
CHROOCOCCUS DISPERSUS	-	37	-	-	4	6	15	-	-	*******
CHROOCOCCUS DISPERSUS V MINOR	-	-	33	-	-	-	-	-	-	*******
CHROOCOCCUS MINIMUS	-	-	-	-	17	-	-	-	-	*******
CHROOCOCCUS MINUTUS	-	-	41	-	-	-	-	39	60	*******
CHROOCOCCUS SP	-	18	-	-	-	-	-	-	-	*******
GLOEOCAPSA SP	-	-	-	-	-	11	-	-	-	*******
MERISMOPEDIA TENUISSIMA	-	5	-	48	35	-	-	-	-	*******
MICROCYSTIS INCERTA	-	-	296	97	17	-	-	-	-	*******
OSCILLATORIA SP	-	-	-	6	3	-	-	-	-	*******
SPIRULINA SP	-	-	-	-	-	-	3	-	-	*******
CHLOROPHYCEAE										
ANKISTRODESMUS CONVOLUTUS	-	-	-	-	-	4	-	-	-	*******
ANKISTRODESMUS FALCATUS	5	-	45	12	8	10	4	10	6	*******
ANKISTRODESMUS NANNOSELENE	-	-	21	-	5	-	6	-	6	*******
ANKISTRODESMUS SPIRALIS	-	-	-	-	-	6	-	-	-	*******
CHARACIUM AMBIGUUM	-	-	-	-	-	-	-	-	-	*******
CHLAMYDOMONAS SP	-	23	25	-	5	3	2	5	-	*******
CHLORELLA SP	-	-	-	-	-	3	-	-	-	*******
CHLOROCOCCUM HUMICOLA	-	-	-	-	-	6	-	-	-	*******
CLOSTERIUM SP	-	-	-	3	-	-	-	-	6	*******
COELASTRUM CAMBRICUM	-	37	-	-	-	-	-	-	-	*******
COELASTRUM MICROPORUM	9	42	-	-	12	22	22	-	-	*******
COELASTRUM MORUS	-	-	-	-	-	-	-	5	-	*******

TABLE H-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
COELASTRUM PROBOSCIDEUM	-	-	-	-	-	-	-	-	72	********
COSMARIUM SP	5	-	8	3	-	-	-	5	-	********
CRUCIGENIA APICULATA	-	102	-	-	-	-	-	-	-	********
CRUCIGENIA FENESTRATA	-	-	-	-	-	-	4	-	-	********
CRUCIGENIA QUADRATA	-	55	-	3	4	6	4	-	-	********
CRUCIGENIA TETRAPEDIA	-	509	33	-	-	6	-	-	24	********
DICTYOSPHAERIUM PULCHELLUM	-	-	-	-	-	148	29	-	222	********
GOLENKINIA RADIATA	-	-	-	-	-	1	P	-	12	********
KIRCHNERIELLA LUNARIS	-	-	12	-	-	-	-	-	-	********
KIRCHNERIELLA OBESA	-	-	-	-	2	1	-	-	-	********
KIRCHNERIELLA SOLITARIA	-	-	16	36	-	-	-	-	6	********
OOCYSTIS SP	-	-	-	-	-	-	-	5	-	********
PEDIASTRUM DUPLEX	-	-	-	-	-	-	-	-	-	********
PEDIASTRUM OBTUSUM	-	37	-	-	-	3	-	-	-	********
PEDIASTRUM SIMPLEX	-	-	91	-	17	-	-	-	-	********
PEDIASTRUM TETRAS V TETRAODON	-	18	-	-	-	-	-	-	-	********
SCENEDESMUS ABUNDANS	5	18	49	24	-	-	-	10	30	********
SCENEDESMUS ACUMINATUS	-	9	-	-	10	-	-	-	-	********
SCENEDESMUS ARMATUS	56	79	86	24	14	6	4	98	60	********
SCENEDESMUS ARMATUS V BICAUDATA	-	5	-	-	-	-	-	-	36	********
SCENEDESMUS BIJUGA	19	120	25	-	-	6	6	-	-	********
SCENEDESMUS DENTICULATUS	5	185	16	12	4	-	2	-	72	********
SCENEDESMUS QUADRICAUDA	28	157	58	39	15	25	-	98	132	********
SCHROEDERIA SETIGERA	5	-	-	-	-	-	-	-	-	********
SELENASTRUM MINUTUM	-	264	8	-	-	-	P	5	-	********
STAURASTRUM SP	-	5	-	-	-	-	3	-	-	********
TETRAEDRON CAUDATUM	-	-	-	3	-	-	-	-	-	********
TETRAEDRON MINIMUM	-	-	-	-	9	-	-	-	6	********
TETRAEDRON REGULARE	-	14	-	-	-	-	-	-	-	********
TETRASTRUM ELEGANS	-	-	25	-	4	-	-	-	-	********
TETRASTRUM STAUROGENIFORME	-	-	49	-	4	8	-	5	-	********
CRYPTOPHYCEAE										
CRYPTOMONAS SP	-	5	-	-	-	-	-	-	-	*******

TABLE H-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
DINOPHYCEAE										
CERATIUM HIRUNDINELLA	-	5	-	-	-	-	-	-	-	********
PERICINIUM SP	-	-	-	-	2	1	-	-	6	********
XANTHOPHYCEAE										
OPHIOCYTIUM CAPITATUM V LONGISPINUM	-	5	-	-	-	-	-	-	-	********
CHRYSOPHYCEAE										
DINOBRYON DIVERGENS	-	305	12	9	2	13	7	5	-	********
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES CLEVEI	-	-	-	3	-	-	-	-	-	********
ACHNANTHES LANCEOLATA	-	-	45	15	-	-	-	-	-	********
ACHNANTHES LANCEOLATA V DUBIA	-	5	-	-	14	3	3	19	24	********
ACHNANTHES SP	-	-	-	-	-	-	P	-	-	********
AMPHIPLEURA PELLUCIDA	-	5	-	-	-	-	-	-	-	********
AMPHORA PERPUSSILLA	-	-	-	6	-	-	-	-	-	********
ANOMOEONEIS EXILIS	-	5	-	-	-	-	-	-	-	********
ASTERIONELLA FORMOSA	210	-	45	-	2	8	-	54	54	********
COCCONEIS DISCULUS	-	-	-	-	-	-	P	-	-	********
COCCONEIS PEDICULIS	-	9	-	-	-	1	-	5	-	********
COCCONEIS PLACENTULA	-	-	-	24	-	-	-	-	6	********
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	5	-	-	2	-	-	********

TABLE H-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
CYCLOTELLA CATENATA	23	-	-	-	-	-	-	15	-	********
CYCLOTELLA GLOMERATA	89	28	679	3	-	14	-	679	842	********
CYCLOTELLA MENEGHINIANA	5	-	-	-	-	-	-	-	-	********
CYCLOTELLA STELLIGERA	19	231	4	6	6	-	4	10	24	********
CYMBELLA DELICATULA	-	-	-	-	-	-	-	-	-	********
CYMBELLA LEPTOCERUS	-	-	-	12	-	-	-	-	-	********
CYMBELLA MICROCEPHALA	-	5	12	166	-	-	-	-	-	********
CYMBELLA MINUTA	-	-	4	18	-	3	-	-	-	********
CYMBELLA PUSILLA	-	-	-	9	-	-	-	-	-	********
CYMBELLA TUMIDA	-	-	-	15	1	1	-	-	-	********
CYMBELLA SP	-	-	-	-	-	-	-	-	-	********
EUNOTIA CURVATA	-	-	-	-	-	-	-	-	-	********
EUNOTIA TENELLA	-	-	-	-	-	-	2	5	-	********
EUNOTIA SP	-	9	-	-	-	-	-	-	-	********
FRAGILARIA BREVISTRIATA	-	-	-	6	-	-	-	-	-	********
FRAGILARIA CAPUCINA	-	-	-	24	-	-	-	-	-	********
FRAGILARIA CAPUCINA V MESOLEPTA	-	-	-	-	-	-	-	-	-	********
FRAGILARIA CONSTRUENS	-	-	-	9	-	-	-	15	60	********
FRAGILARIA CROTONENSIS	-	-	4	-	-	-	-	-	-	********
FRAGILARIA LEPTOSTAURON	-	18	8	184	-	-	-	-	-	********
FRAGILARIA PINNATA	-	-	95	329	12	7	3	34	42	********
FRUSTULIA RHOMBOIDES	-	-	-	-	-	-	-	-	-	********
GOMPHONEMA PARVULUM	-	-	4	6	1	-	7	-	-	********
GOMPHONEMA SP	-	-	-	-	-	-	-	-	-	********
GYROSIGMA ACUMINATUM	-	-	-	-	-	-	P	-	-	********
GYROSIGMA SP	-	-	-	-	-	-	-	-	6	********
MELOSIRA AMBIGUA	37	23	95	6	-	-	-	34	54	********
MELOSIRA DISTANS	1877	14	-	-	-	-	2	958	1130	********
MELOSIRA GRANULATA	56	5	-	-	-	-	-	29	-	********
MELOSIRA GRANULATA V ANGUSTISSIMA	9	-	8	-	-	10	16	34	30	********
MELOSIRA VARIANS	19	9	33	-	1	-	-	10	-	********
NAVICULA CRYPTOCEPHALA	5	18	12	3	1	4	3	10	-	********
NAVICULA EXIGUA V CAPITATA	-	-	33	18	3	4	-	15	-	********
NAVICULA FRACTA	-	5	-	-	-	-	-	-	-	********
NAVICULA GASTRUM	-	-	-	-	-	-	P	-	-	********
NAVICULA GREGARIA	-	-	4	-	-	-	P	-	-	********
NAVICULA LATENS	-	-	-	-	-	-	-	-	-	********
NAVICULA LATEROPUNCTATA	-	-	4	-	-	-	-	-	-	********
NAVICULA PUPULA	14	5	16	9	1	-	3	-	6	********
NAVICULA SALINARIUM V INTERMEDIA	-	9	-	-	-	1	-	-	6	********
NAVICULA SP	5	37	45	27	6	1	6	15	-	********
NITZSCHIA ACICULARIS	9	14	-	3	1	1	-	-	6	********

TABLE H-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
NITZSCHIA AMPHIEIA	-	-	-	3	-	-	-	-	-	********
NITZSCHIA COMMUNIS	-	-	-	-	-	-	-	-	-	********
NITZSCHIA GRACILIS	-	-	-	-	-	-	-	-	-	********
NITZSCHIA KUTZINGIANA	-	-	-	-	-	-	-	-	-	********
NITZSCHIA OBTUSA V SCALPELLIFORMIS	-	-	-	-	-	-	-	-	-	********
NITZSCHIA PALEA	5	5	-	3	1	-	-	-	-	********
NITZSCHIA PALEACEA	-	-	-	3	-	-	-	-	-	********
NITZSCHIA SP	-	-	-	-	-	3	-	-	-	********
OPEPHORA MARTYI	-	-	-	-	-	-	-	-	-	********
PINNULARIA SP	-	-	-	-	-	-	-	5	-	********
STEPHANODISCUS SP	-	14	-	-	-	-	-	-	-	********
SURIRELLA ATOMUS	5	-	-	-	-	-	-	-	6	********
SURIRELLA SP	-	-	-	-	-	-	-	-	-	********
SYNEDRA CAPITATA	5	-	-	-	-	-	-	-	-	********
SYNEDRA DELICATISSIMA	-	28	-	-	-	-	-	-	6	********
SYNEDRA RUMPENS	-	-	-	-	-	-	P	-	-	********
SYNEDRA RUMPENS V FAMILARIS	-	-	-	-	-	-	-	-	-	********
SYNEDRA ULNA	-	-	4	-	-	1	-	-	-	********
TABELLARIA FLOCCULOSA V FLOCCULOSA	5	-	-	-	-	-	-	-	-	********
EUGLENOPHYCEAE										
EUGLENA SP	-	-	8	-	-	-	-	-	-	********
PHACUS SP	-	-	8	-	-	-	-	-	-	********
TRACHELOMONAS SP	-	14	8	3	6	1	-	-	-	********
CILIOPHORA										
STROBILIDIUM GYRANS	5	-	-	6	-	-	-	-	-	********
UNID CILIOPHORA	5	-	25	-	-	4	5	5	6	********
TOTAL NUMBER OF ORGANISMS	2544	2824	2152	1247	249	379	175	2241	3064	******
NUMBER OF TAXA	29	50	44	43	35	39	34	31	33	******

TABLE H-2a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

(June 5-7, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
CYANOPHYCEAE										
ANABAENA SP	-	64	-	-	-	-	-	-	-	-
APHANOCAPSA DELICATISSIMA	-	-	-	-	-	-	-	-	745	-
APHANOCAPSA ELACHISTA	-	-	-	-	-	-	-	-	784	839
APHANOCAPSA PULCHRA	-	-	-	-	-	-	-	-	-	-
APHANOTHECE NIDULANS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS DISPERSUS	-	64	-	-	-	-	23	-	32	268
CHROOCOCCUS LIMNETICUS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS MINIMUS	70	51	62	41	-	-	-	-	174	754
CHROOCOCCUS PALLIDUS	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA GLAUCA	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA TENUISSIMA	70	-	-	82	-	-	-	-	3598	4792
MICROCYSTIS INCERTA	-	-	-	-	-	-	-	-	-	2627
OSCILLATORIA SP	70	191	-	128	19	-	-	-	-	-
SPIRULINA SP	-	-	-	-	-	-	-	-	16	24
CHLOROPHYCEAE										
ACTINASTRUM HANTZSCHII	-	-	-	-	-	-	-	-	-	-
ANKISTRODESMUS FALCATUS	-	6	5	-	-	-	23	-	32	109
ANKISTRODESMUS NANNOSELENE	9	-	-	-	-	-	-	-	47	292
ANKISTRODESMUS SPIRALIS	-	6	-	-	-	-	-	-	-	-
CARTERIA SP	-	-	-	-	-	-	-	-	-	-
CHARACIUM AMBIGUUM	-	-	-	-	-	-	-	-	-	-
CHLAMYDOMONAS SP	-	-	-	-	-	-	-	-	-	36
CHLORELLA SP	-	-	-	-	-	-	-	-	-	-
CHODATELLA CHODATI	-	-	-	-	-	-	-	-	-	12
CHODATELLA SUBSALSA	-	-	-	-	-	-	-	-	-	-
CLOSTERIUM SP	-	-	-	-	-	-	-	-	16	-
COELASTRUM CAMBRICUM	-	-	-	-	-	-	-	-	-	-
COELASTRUM MICROPORUM	-	57	41	-	-	25	87	8	254	97
COELASTRUM MORUS	-	-	-	-	-	-	-	-	-	-

TABLE H-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
COELASTRUM PROBOSCIDEUM	-	-	-	-	-	-	-	-	32	-
COELASTRUM SPHAERICUM	-	-	-	-	-	-	-	-	-	-
COSMARIUM SP	-	-	-	-	-	-	-	-	16	-
CRUCIGENIA APICULATA	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA QUADRATA	-	-	-	-	-	-	-	-	-	36
CRUCIGENIA TETRAPEDIA	-	-	-	-	-	-	-	-	-	-
DICTYOSPHAERIUM PULCHELLUM	-	-	-	-	-	-	-	-	626	645
ELAKATOTHRIX GELATINOSA	-	-	-	-	-	-	-	-	-	-
EUASTRUM SP	-	-	-	-	-	-	3	-	-	-
GOLENKINIA PAUCISPINA	-	-	-	-	-	-	-	-	-	-
GOLENKINIA RADIATA	-	-	-	-	-	-	3	-	-	-
KIRCHNERIELLA LUNARIS	-	6	36	26	-	-	-	4	317	401
KIRCHNERIELLA OBESA	-	-	-	-	-	-	-	-	111	170
KIRCHNERIELLA SOLITARIA	-	-	-	-	-	-	-	-	-	-
KIRCHNERIELLA SP	-	-	-	-	-	-	-	-	-	-
OOCYSTIS SP	-	-	-	5	3	-	23	-	-	-
PANDORINA MORUM	-	-	-	-	-	-	-	-	380	109
PANDORINA SP	-	-	-	-	-	-	-	-	571	924
PEDIASTRUM BIRADIATUM	148	-	-	-	-	-	-	-	63	97
PEDIASTRUM BORYANUM	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM DUPLEX	-	-	-	-	-	-	-	-	127	-
PEDIASTRUM OBTUSUM	70	-	-	-	-	-	-	-	-	-
PEDIASTRUM SIMPLEX	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM TETRAS V TETRAODON	-	-	-	-	-	-	-	-	-	49
PEDIASTRUM SP	-	-	-	-	-	-	-	-	-	-
PTEROMONAS SP	-	-	-	-	-	-	-	-	-	-
SCENEDESMUS ABUNDANS	52	-	-	-	-	-	-	-	16	122
SCENEDESMUS ACUMINATUS	-	-	-	-	-	-	-	-	32	49
SCENEDESMUS ARMATUS	70	64	-	72	-	-	23	-	206	243
SCENEDESMUS ARMATUS V BICAUDATA	35	-	-	10	-	-	23	16	95	97
SCENEDESMUS BIJUGA	-	38	-	10	-	-	-	-	32	24
SCENEDESMUS DENTICULATUS	-	25	-	-	-	-	-	-	-	-
SCENEDESMUS QUADRICAUDA	279	89	-	41	-	-	6	8	246	511
SCHROEDERIA SETIGERA	-	-	-	-	-	-	-	-	-	-
SELENASTRUM MINUTUM	-	6	-	-	-	-	-	-	-	-
STAURASTRUM SP	-	6	-	-	-	-	3	-	8	-
TETRAEDRON CAUDATUM	-	-	-	-	-	-	-	-	8	12
TETRAEDRON MINIMUM	-	-	10	-	-	3	-	-	16	36
TETRASTRUM ELEGANS	-	-	-	-	-	-	-	-	-	-
TETRASTRUM STAUROGENIFORME	-	25	-	-	-	-	-	-	47	146
CRYPTOPHYCEAE										

TABLE H-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
UNID CRYPTOMONACACEAE	-	-	-	-	-	-	-	-	-	-
DINOPHYCEAE										
GYMNODINIUM SP	-	-	-	-	-	-	-	-	-	-
PERIDINIUM SP	9	-	-	-	-	-	-	-	-	36
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	-	-	-	-	-	-	-	-	-	85
CENTRITRACTUS BELANOPHORUS	-	-	-	-	-	-	-	-	-	-
OPHIOCYTIUM CAPITATUM	-	13	-	-	-	-	-	-	-	-
OPHIOCYTIUM CAPITATUM V LONGISPINUM	-	-	-	-	-	-	-	-	-	-
CHRYSOPHYCEAE										
DINOBYRON CAMPANULOSTIPITATUM	-	-	-	-	-	-	-	-	-	-
DINOBRYON DIVERGENS	-	-	-	-	-	-	-	-	-	-
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES CLEVEI	-	-	-	-	-	-	-	-	-	-
ACHNANTHES LANCEOLATA V DUBIA	9	-	5	-	-	-	-	-	-	-
AMPHORA OVALIS	-	-	-	-	-	-	-	-	-	24
AMPHORA PERPUSSILLA	-	-	-	-	-	-	-	-	-	-
ASTERIONELLA FORMOSA	-	13	10	10	-	-	12	-	55	12
COCCONEIS PLACENTULA	-	-	-	-	-	-	-	-	-	-

TABLE H-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	-	-	-	-	-	-	-
CYCLOTELLA CATENATA	-	-	-	-	-	-	-	-	-	-
CYCLOTELLA GLOMERATA	70	159	62	26	16	25	41	20	16	12
CYCLOTELLA STELLIGERA	26	38	67	31	5	13	20	24	55	73
CYMBELLA LEPTOCEROS	-	-	-	-	-	-	-	-	-	-
CYMBELLA MICROCEPHALA	-	-	-	5	-	-	-	-	-	-
CYMBELLA MINUTA	-	-	-	5	-	-	-	-	-	-
CYMBELLA TUMIDA	-	-	-	-	-	-	-	-	-	-
DIPLONEIS SP	-	-	-	-	-	-	-	-	-	-
EUNOTIA TENELLA	-	-	-	-	-	-	-	4	-	-
EUNOTIA SP	-	6	-	-	-	-	-	-	-	-
FRAGILARIA CONSTRUENS	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CROTONENSIS	-	332	135	-	-	-	-	-	-	-
FRAGILARIA LEPTOSTAURON	-	-	-	-	-	-	-	-	-	-
FRAGILARIA PINNATA	-	-	-	-	-	-	-	-	-	-
FRUSTULIA RHOMBOIDES	-	-	5	-	-	-	-	-	-	-
FRUSTULIA VULGARIS	9	-	-	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	-	13	-	5	3	6	-	-	-	-
MELOSIRA AMBIGUA	17	64	47	-	19	9	-	8	127	73
MELOSIRA DISTANS	3164	2271	1791	1979	1144	1418	1107	1714	2940	3915
MELOSIRA GRANULATA	61	83	31	61	11	6	29	20	16	49
MELOSIRA GRANULATA V ANGUSTISSIMA	35	-	-	20	-	-	14	28	-	-
MELOSIRA VARIANS	-	6	5	15	27	3	14	12	-	-
NAVICULA CRYPTOCEPHALA	9	13	5	5	3	3	6	4	8	-
NAVICULA EXIGUA V CAPITATA	5	-	-	-	3	-	3	4	-	-
NAVICULA GREGARIA	-	-	-	-	-	-	-	-	-	-
NAVICULA PUPULA	5	-	-	-	3	-	3	-	-	-
NAVICULA SALINARIUM V INTERMEDIA	-	-	-	-	-	-	-	4	-	-
NAVICULA SP	-	-	-	-	-	-	-	-	-	-
NEIDIUM AFFINE V LONGICEPS	-	-	-	-	-	-	-	-	-	-
NITZSCHIA ACICULARIS	-	-	-	-	-	-	3	-	-	-
NITZSCHIA HOLSATICA	-	-	-	-	-	-	-	-	-	-
NITZSCHIA IGNORATA	-	-	5	-	-	-	-	-	-	-
NITZSCHIA KUTZINGIANA	9	13	5	5	-	-	-	-	-	-
NITZSCHIA PALEA	-	6	-	-	-	-	-	-	-	-
NITZSCHIA PALEACEA	-	-	-	-	-	-	-	-	-	-
NITZSCHIA SINUATA V TABELLARIA	-	-	-	-	-	-	3	-	-	-
NITZSCHIA THERMALIS	-	-	5	-	-	-	-	-	-	-
NITZSCHIA SP	-	6	5	-	-	-	-	-	-	-
PINNULARIA APAUJENSIS V ROSTRATA	-	6	-	-	-	-	-	-	-	-
PINNULARIA SUBCAPITATA	17	-	5	-	-	3	-	-	-	-
PINNULARIA SP	-	6	-	-	3	-	-	-	-	-
SYNEDRA CAPITATA	-	-	-	-	-	-	-	-	-	-
SYNEDRA DELICATISSIMA	-	-	-	-	-	-	-	-	24	-
SYNEDRA RUMPENS	-	-	-	-	-	-	-	-	-	-

TABLE H-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
SYNEDRA ULNA	-	-	5	-	-	-	-	-	-	-
TERPSINOE MUSICA	-	-	-	-	-	-	-	-	-	-
EUGLENOPHYCEAE										
EUGLENA SP	-	-	-	-	-	-	-	-	8	24
TRACHELOMONAS SP	-	-	5	5	-	-	3	-	8	61
CILIOPHORA										
UNID CILIOPHORA	-	-	-	-	-	-	3	-	40	49
ROTIFERA										
UNID ROTIFER	-	-	-	-	-	-	-	-	-	-
PROTOZOANS										
VORTICELLA SP	-	-	-	-	-	-	-	-	-	12
TOTAL NUMBER OF ORGANISMS	4326	3746	2342	2587	1259	1514	1478	1878	11944	17947
NUMBER OF TAXA	24	32	23	22	13	11	24	15	40	41

TABLE H-2b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

(June 5-7, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	••••••
CYANOPHYCEAE										
ANABAENA SP	-	-	-	-	-	-	-	-	-	••••••••
APHANOCAPSA DELICATISSIMA	-	3776	-	-	-	-	-	-	-	••••••••
APHANOCAPSA ELACHISTA	79	-	-	-	111	-	-	131	-	••••••••
APHANOCAPSA PULCHRA	-	40	-	-	-	-	-	-	-	••••••••
APHANOTHECE NIDULANS	-	2373	219	-	58	-	5	29	-	••••••••
CHROOCOCCUS DISPERSUS	39	443	38	60	117	-	7	165	53	••••••••
CHROOCOCCUS LIMNETICUS	-	-	-	-	-	10	-	-	-	••••••••
CHROOCOCCUS MINIMUS	-	58	22	40	10	-	-	-	-	••••••••
CHROOCOCCUS PALLIDUS	-	61	19	20	62	7	3	-	-	••••••••
MERISMOPEDIA GLAUCA	-	3744	-	-	-	-	-	-	-	••••••••
MERISMOPEDIA TENUISSIMA	710	769	264	413	658	-	14	223	232	••••••••
MICROCYSTIS INCERTA	1480	2842	206	-	255	71	-	683	-	••••••••
OSCILLATORIA SP	-	-	-	105	12	7	14	-	-	••••••••
SPIRULINA SP	-	-	-	-	-	-	-	-	-	••••••••
CHLOROPHYCEAE										
ACTINASTRUM HANTZSCHII	-	-	88	-	173	14	-	-	-	••••••••
ANKISTRODESMUS FALCATUS	30	7	88	17	13	P	-	19	-	••••••••
ANKISTRODESMUS NANNOSELENE	49	14	19	25	13	4	P	24	11	••••••••
ANKISTRODESMUS SPIRALIS	-	-	-	30	10	-	P	-	-	••••••••
CARTERIA SP	-	-	3	5	-	4	P	-	-	••••••••
CHARACIUM AMBIGUUM	-	7	-	-	2	-	P	-	-	••••••••
CHLAMYDOMONAS SP	-	-	5	5	2	3	-	-	-	••••••••
CHLORELLA SP	-	-	-	-	-	P	-	-	-	••••••••
CHODATELLA CHODATI	-	-	-	-	-	-	-	-	-	••••••••
CHODATELLA SUBSALSA	-	-	-	-	-	-	-	5	-	••••••••
CLOSTERIUM SP	-	-	-	5	-	2	P	-	5	••••••••
COELASTRUM CAMBRICUM	-	112	-	-	-	-	-	-	-	••••••••
COELASTRUM MICROPORUM	178	18	66	50	2	15	P	58	132	••••••••
COELASTRUM MORUS	632	-	-	-	-	-	-	-	42	••••••••

TABLE H-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
COELASTRUM PROBOSCIDEUM	-	-	-	-	-	-	3	-	42	********
COELASTRUM SPHAERICUM	-	-	-	-	27	-	-	-	-	********
COSMARIUM SP	-	11	3	5	3	-	-	-	5	********
CRUCIGENIA APICULATA	158	65	-	-	-	-	3	-	-	********
CRUCIGENIA QUADRATA	99	14	66	10	-	-	-	-	-	********
CRUCIGENIA TETRAPEDIA	128	108	-	10	-	-	-	-	-	********
DICTYOSPHAERIUM PULCHELLUM	424	43	52	-	85	-	6	-	106	********
ELAKATOTHRIX GELATINOSA	-	7	-	-	-	-	-	-	-	********
EUASTRUM SP	-	-	-	-	-	-	-	-	-	********
GOLENKINIA PAUCISPINA	10	29	5	2	-	P	-	-	-	********
GOLENKINIA RADIATA	-	4	22	-	27	-	P	24	-	********
KIRCHNERIELLA LUNARIS	49	40	47	52	73	10	P	34	5	********
KIRCHNERIELLA OBESA	158	-	14	10	2	7	-	5	11	********
KIRCHNERIELLA SOLITARIA	-	-	-	30	2	-	-	-	-	********
KIRCHNERIELLA SP	217	-	-	-	-	-	-	-	-	********
OOCYSTIS SP	-	4	14	-	20	-	-	5	5	********
PANDORINA MORUM	-	-	41	82	-	-	-	-	-	********
PANDORINA SP	-	-	66	-	22	7	2	-	-	********
PEDIASTRUM BIRADIATUM	-	-	-	-	-	-	-	-	-	********
PEDIASTRUM BORYANUM	-	-	-	30	-	-	-	-	-	********
PEDIASTRUM DUPLEX	-	-	-	-	15	-	-	-	-	********
PEDIASTRUM OBTUSUM	158	-	-	-	-	-	-	-	42	********
PEDIASTRUM SIMPLEX	-	-	27	-	-	-	-	-	-	********
PEDIASTRUM TETRAS V TETRAODON	-	-	-	-	-	-	-	19	-	********
PEDIASTRUM SP	39	-	-	-	-	-	-	-	-	********
PTEROMONAS SP	20	-	-	-	2	-	2	5	5	********
SCENEDESMUS ABUNDANS	118	14	-	20	-	-	-	63	11	********
SCENEDESMUS ACUMINATUS	-	-	-	-	-	-	3	-	21	********
SCENEDESMUS ARMATUS	335	29	33	30	53	2	-	281	106	********
SCENEDESMUS ARMATUS V BICAUDATA	138	36	14	10	-	5	7	58	47	********
SCENEDESMUS BIJUGA	-	87	58	50	7	-	8	-	11	********
SCENEDESMUS DENTICULATUS	-	-	55	2	-	-	5	5	84	********
SCENEDESMUS QUADRICAUDA	197	123	49	37	28	17	5	218	111	********
SCHROEDERIA SETIGERA	-	-	5	-	-	-	-	-	-	********
SELANASTRUM MINUTUM	-	-	11	-	3	-	-	-	-	********
STAURASTRUM SP	-	50	-	-	3	-	-	5	-	********
TETRAEDRON CAUDATUM	-	47	-	2	2	-	-	14	5	********
TETRAEDRON MINIMUM	10	22	8	5	28	-	-	5	-	********
TETRASTRUM ELEGANS	-	-	-	-	2	-	-	-	-	********
TETRASTRUM STAUROGENIFORME	-	14	-	-	7	-	-	77	-	********
CRYPTOPHYCEAE										

TABLE H-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	••••••
UNID CRYPTOMONACACEAE	-	-	311	92	32	-	-	-	-	•••••••
DINOPHYCEAE										
GYMNODINIUM SP	-	4	-	-	-	-	-	-	-	•••••••
PERIDINIUM SP	20	29	3	5	-	P	P	5	5	•••••••
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	39	-	-	12	18	P	-	14	16	•••••••
CENTRITRACTUS BELANOPHORUS	-	7	-	-	-	-	-	-	-	•••••••
OPHIOCYTIUM CAPITATUM	-	-	-	-	-	-	-	-	-	•••••••
OPHIOCYTIUM CAPITATUM V LONGISPINUM	10	4	-	-	2	2	-	-	-	•••••••
CHRYSOPHYCEAE										
DINOBYRON CAMPANULOSTIPITATUM	-	54	-	12	-	-	-	-	-	•••••••
DINOBRYON DIVERGENS	-	18	-	-	-	-	-	-	-	•••••••
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES CLEVEI	-	-	-	-	-	2	2	-	-	•••••••
ACHNANTHES LANCEOLATA V DUBIA	20	11	8	15	8	P	2	10	5	•••••••
AMPHORA OVALIS	-	-	3	2	-	-	P	-	-	•••••••
AMPHORA PERPUSSILLA	-	-	-	-	-	P	-	-	-	•••••••
ASTERIONELLA FORMOSA	-	-	-	-	-	-	-	10	11	•••••••
COCCONEIS PLACENTULA	-	-	-	-	-	P	-	-	-	•••••••

TABLE H-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)								
	11	12	13	14	15	16	17	18	19
COCCONEIS PLACENTULA V EUGLYPTA	-	-	3	12	-	P	2	-	-
CYCLOTELLA CATENATA	-	-	-	-	2	-	-	-	5
CYCLOTELLA GLOMERATA	49	-	11	2	13	4	-	14	11
CYCLOTELLA STELLIGERA	89	72	22	22	17	3	5	19	11
CYMBELLA LEPTOCEROS	-	-	-	35	-	-	-	-	-
CYMBELLA MICROCEPHALA	-	22	3	25	-	-	-	-	-
CYMBELLA MINUTA	10	4	3	-	-	-	-	-	-
CYMBELLA TUMIDA	-	-	-	-	-	-	P	-	-
DIPLONEIS SP	-	-	-	2	2	-	-	-	-
EUNOTIA TENELLA	-	-	-	-	-	-	-	-	-
EUNOTIA SP	-	-	-	20	-	2	P	-	-
FRAGILARIA CONSTRUENS	-	4	-	27	-	-	15	-	5
FRAGILARIA CROTONENSIS	-	-	-	-	-	-	-	-	-
FRAGILARIA LEPTOSTAURON	-	22	3	70	-	-	-	-	-
FRAGILARIA PINNATA	-	-	-	137	12	-	-	-	-
FRUSTULIA RHOMBOIDES	-	-	-	-	-	-	-	-	-
FRUSTULIA VULGARIS	-	-	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	10	-	-	5	-	3	P	-	-
MELOSIRA AMBIGUA	207	-	102	-	27	-	-	34	-
MELOSIRA DISTANS	3138	29	44	10	112	22	8	1429	1902
MELOSIRA GRANULATA	59	-	3	5	2	-	-	34	47
MELOSIRA GRANULATA V ANGUSTISSIMA	10	-	11	-	20	-	3	82	26
MELOSIRA VARIANS	-	-	3	2	5	P	3	10	-
NAVICULA CRYPTOCEPHALA	-	25	-	5	-	-	3	-	-
NAVICULA EXIGUA V CAPITATA	-	-	-	-	3	-	-	-	5
NAVICULA GREGARIA	-	4	-	-	-	-	-	-	-
NAVICULA PUPULA	-	-	3	5	-	2	P	-	-
NAVICULA SALINARIUM V INTERMEDIA	-	-	-	-	-	-	P	-	-
NAVICULA SP	-	4	5	5	8	P	3	-	5
NEIDIUM AFFINE V LONGICEPS	-	-	-	-	-	-	P	-	-
NITZSCHIA ACICULARIS	39	7	8	-	2	P	3	14	11
NITZSCHIA HOLSATICA	-	-	-	-	12	-	-	-	-
NITZSCHIA IGNORATA	-	-	-	-	-	-	-	-	-
NITZSCHIA KUTZINGIANA	10	-	-	-	-	-	-	-	-
NITZSCHIA PALEA	10	-	-	-	-	-	P	-	-
NITZSCHIA PALEACEA	-	-	-	-	2	-	P	-	-
NITZSCHIA SINUATA V TABELLARIA	-	-	-	-	-	-	-	-	-
NITZSCHIA THERMALIS	-	-	-	-	-	-	-	-	-
NITZSCHIA SP	10	14	-	5	3	2	3	-	-
PINNULARIA ABAUJENSIS V ROSTRATA	-	-	-	-	-	-	-	-	-
PINNULARIA SUBCAPITATA	-	-	-	-	-	-	-	-	-
PINNULARIA SP	-	-	-	-	-	-	-	-	-
SYNEDRA CAPITATA	-	-	-	2	-	-	-	-	-
SYNEDRA DELICATISSIMA	-	7	-	10	3	-	-	-	-
SYNEDRA RUMPENS	-	-	-	2	2	P	-	-	-

TABLE H-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
SYNECRA ULNA	-	-	-	-	2	2	2	-	-	*******
TERPSINOE MUSICA	-	-	-	-	-	-	2	-	-	*******
EUGLENOPHYCEAE										
EUGLENA SP	-	4	3	2	3	P	-	-	5	*******
TRACHELOMONAS SP	-	7	-	12	8	P	2	5	-	*******
CILIOPHORA										
UNID CILIOPHORA	10	18	14	2	3	-	P	14	16	*******
ROTIFERA										
UNID ROTIFER	-	-	5	-	-	-	-	5	-	*******
PROTOZOANS										
VORTICELLA SP	-	-	8	-	-	-	-	-	-	*******
TOTAL NUMBER OF ORGANISMS	9195	15377	2306	1724	2232	244	164	3854	3178	******
NUMBER OF TAXA	41	55	53	59	61	41	49	39	38	******

TABLE H-3a

**LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML) **

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CYANOPHYCEAE										
ANABAENA SP	-	-	-	-	-	-	-	-	-	-
ANABAENOPSIS SP	-	-	-	-	-	-	-	-	-	-
APHANIZOMENON FLOS-AQUAE	1151	1740	831	588	436	283	35	613	475	294
APHANOCAPSA DELICATISSIMA	167	-	-	-	-	-	601	186	2140	-
APHANOCAPSA ELACHISTA	-	2743	-	2615	1015	215	845	397	677	2136
APHANOCAPSA PULCHRA	167	-	-	-	-	-	-	-	-	-
APHANOTHECE NIDULANS	-	-	-	-	-	-	-	-	214	-
CHROOCOCCUS DISPERSUS	920	171	486	349	111	132	270	254	1022	327
CHROOCOCCUS LIMNETICUS	-	-	-	-	-	-	-	-	-	-
CHROOCOCCUS MINIMUS	-	-	-	-	-	-	192	252	-	1209
CHROOCOCCUS PALLIDUS	-	-	-	-	-	-	-	-	-	-
LYNGBYA CONTORTA	335	256	-	523	79	98	105	130	83	207
LYNGBYA SP	-	-	-	-	-	147	-	-	-	-
MERISMOPEDIA PUNCTATA	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA TENUISSIMA	-	640	448	174	460	19	697	185	1307	1068
MICROCYSTIS INCERTA	1904	-	1139	1460	2211	850	2632	3435	1425	1504
OSCILLATORIA LIMNETICA	397	352	486	261	325	235	471	162	333	835
OSCILLATORIA SP	-	-	-	-	-	-	-	-	-	-
SPIRULINA LAXA	314	597	233	294	222	99	192	96	309	207
CHLOROPHYCEAE										
ANKISTRODESMUS FALCATUS	52	43	19	-	-	5	113	18	24	22
ANKISTRODESMUS NANNOSELENE	52	21	-	-	-	10	9	-	-	53
ANKISTRODESMUS SPIRALIS	1098	1074	700	521	523	299	619	276	1046	850
CARTERIA SP	-	-	-	-	-	-	-	-	-	-
CHLAMYDOMONAS SP	-	-	-	-	-	5	17	-	59	22
CHLORELLA SP	-	-	-	-	-	-	-	-	-	-
CHODATELLA CHODATI	-	-	-	-	-	-	-	-	-	-
CHODATELLA SUBSALSA	10	-	19	-	-	-	3	6	24	-
CHODATELLA WRATISLAWIENSIS	-	-	-	-	-	-	-	-	-	-

TABLE H-3a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CLOSTERIUM SP	10	-	-	-	-	5	9	-	12	-
COELASTRUM MICROPORUM	94	-	-	87	127	-	-	-	-	-
COELASTRUM MORUS	-	-	-	-	-	-	-	-	-	-
COELASTRUM PROBOSCIDEUM	167	-	-	11	-	-	-	6	-	-
COELASTRUM SPHAERICUM	-	-	149	-	-	-	-	-	-	-
COSMARIUM TRILOBULATUM	-	-	-	-	-	-	-	-	-	-
COSMARIUM SP	63	75	56	33	32	24	11	6	12	44
CRUCIGENIA APICULATA	251	43	-	76	127	12	73	24	47	251
CRUCIGENIA QUADRATA	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA TETRAPEDIA	-	-	-	-	63	-	-	-	-	-
DICTYOSPHAERIUM PULCHELLUM	1255	-	37	33	158	-	35	24	-	-
DYSMORPHOCOCCUS VARIABILIS	-	-	-	-	-	-	9	-	-	-
ELAKATOTHRIX GELATINOSA	-	21	19	-	16	-	17	-	-	-
EUASTRUM SP	-	-	-	-	-	-	-	-	-	-
GOLENKINIA RADIATA	10	11	28	44	24	10	9	12	59	11
GONIUM PECTORALE	-	-	-	-	-	-	157	-	-	-
KIRCHNERIELLA LUNARIS	63	64	177	76	119	73	174	123	238	185
KIRCHNERIELLA OBESA	31	43	-	76	-	-	-	-	-	-
OOCYSTIS SP	-	11	-	-	8	-	-	23	-	11
PANDORINA MORUM	84	-	-	-	-	-	-	-	-	44
PANDORINA SP	-	-	-	174	-	59	-	13	16[illegible]	-
PEDIASTRUM BIRADIATUM	-	43	140	131	32	-	15	-	-	152
PEDIASTRUM DUPLEX	-	-	-	-	-	-	-	49	-	-
PEDIASTRUM DUPLEX V CLATHRATUM	-	-	-	-	-	-	139	-	-	-
PEDIASTRUM OBTUSUM	-	-	9	-	63	107	-	-	-	174
PEDIASTRUM SIMPLEX	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM TETRAS V TETRAODON	42	-	-	-	-	-	35	-	-	-
PTEROMONAS SP	-	-	-	-	-	-	-	-	-	11
SCENEDESMUS ABUNDANS	21	75	-	-	47	-	31	-	233	107
SCENEDESMUS ACUMINATUS	-	-	-	44	32	10	35	24	-	-
SCENEDESMUS ARMATUS	251	85	205	251	111	117	135	293	189	327
SCENEDESMUS ARMATUS V BICAUDATA	105	64	93	152	63	78	322	72	554	251
SCENEDESMUS BIJUGA	31	171	37	-	127	-	17	143	95	22
SCENEDESMUS DENTICULATUS	125	43	112	44	32	30	52	48	114	37
SCENEDESMUS QUADRICAUDA	115	203	177	131	190	122	117	140	257	208
SCENEDESMUS SP	-	85	56	109	79	59	132	12	71	44

TABLE H-3a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
SELENASTRUM MINUTUM	-	-	-	-	-	-	-	10	47	-
STAURASTRUM SP	31	21	-	22	16	10	44	42	24	33
TETRAEDRON CAUDATUM	-	11	-	11	-	5	17	12	-	11
TETRAEDRON MINIMUM	-	11	28	33	-	-	9	-	131	47
TETRAEDRON MUTICUM	-	-	-	-	-	-	-	-	-	-
TETRAEDRON REGULARE	-	-	-	-	-	-	-	-	12	-
TETRAEDRON TRIGONUM	-	-	-	-	-	-	-	23	23	22
TETRASTRUM ELEGANS	-	-	-	-	-	-	-	-	-	-
TETRASTRUM HETEROCANTHUM	-	-	-	97	-	-	-	23	-	-
TETRASTRUM STAUROGENIFORME	-	43	-	44	-	-	35	24	12	-
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	-	-	-	-	-	-	-	-	-	-
CRYPTOMONAS SP	-	-	-	-	-	-	-	-	-	-
UNID CRYPTOMONADACEAE	-	-	-	11	-	-	-	-	-	-
DINOPHYCEAE										
GLENODINIUM QUADRIDENS	-	-	-	-	-	-	-	-	-	-
GLENODINIUM SP	-	-	-	-	-	-	-	-	-	-
PERIDINIUM SP	-	11	9	11	8	-	9	12	120	98
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	-	-	9	-	-	-	-	-	24	22
OPHIOCYTIUM CAPITATUM	-	-	-	-	-	-	-	-	-	-

TABLE H-3a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	21	-	-	-	-	-	17	-	-	-
DINOBRYON SERTULARIA	-	-	-	-	-	-	-	-	-	-
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES LANCEOLATA V DUBIA	-	-	9	-	-	5	9	-	36	11
AMPHORA OVALIS	-	-	-	-	-	-	-	6	-	-
ASTERIONELLA FORMOSA	-	-	9	11	8	-	-	-	12	-
COSCINODISCUS SP	-	-	-	-	-	-	-	-	-	-
CYCLOTELLA CATENATA	-	-	-	-	-	-	-	-	-	-
CYCLOTELLA GLOMERATA	-	-	-	44	16	-	-	-	-	-
CYCLOTELLA MENEGHINIANA	-	-	-	-	-	-	-	-	-	-
CYCLOTELLA STELLIGERA	94	64	19	55	63	44	79	28	95	54
CYMBELLA MICROCEPHALA	-	-	-	-	-	-	-	-	-	-
CYMBELLA MINUTA	-	-	-	-	-	-	-	-	-	-
CYMBELLA SP	-	-	9	-	-	-	-	-	-	-
EUNOTIA SP	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CONSTRUENS	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CROTONENSIS	492	630	903	905	531	445	220	102	71	75
FRAGILARIA LEPTOSTAURON	-	-	-	-	-	-	-	-	-	-
FRAGILARIA PINNATA	-	-	-	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	-	-	-	-	8	17	-	-	-	-
MELOSIRA AMBIGUA	31	-	56	-	63	15	-	46	112	75
MELOSIRA DISTANS	188	245	224	447	277	240	366	252	224	502
MELOSIRA GRANULATA	73	107	24	120	40	132	78	-	178	142
MELOSIRA GRANULATA V ANGUSTISSIMA	21	-	-	-	-	-	-	-	-	-
MELOSIRA VARIANS	-	11	-	-	-	-	-	6	-	-
NAVICULA CRYPTOCEPHALA	-	-	-	11	8	-	-	-	-	-
NAVICULA EXIGUA V CAPITATA	-	-	-	-	-	-	-	-	12	-
NAVICULA GASTRUM	-	-	-	-	-	-	-	-	-	-
NAVICULA PUPULA	-	-	-	-	-	-	-	-	-	-
NAVICULA PUPULA V RECTANGULARIS	-	-	-	-	-	-	-	-	-	-

TABLE H-3a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
NITZSCHIA ACICULARIS	136	64	103	76	103	103	70	30	57	33
NITZSCHIA HOLSATICA	-	-	-	22	16	39	-	-	-	54
NITZSCHIA KUTZINGIANA	21	-	-	33	-	-	-	-	-	-
NITZSCHIA PALEA	10	11	-	-	-	-	-	-	-	-
NITZSCHIA PALEACEA	21	-	19	-	-	-	-	-	-	-
NITZSCHIA SP	-	21	-	11	-	15	35	18	-	11
SURIRELLA SP	-	-	-	-	-	-	-	-	-	-
SYNEDRA DELICATISSIMA	52	53	47	54	103	43	26	78	59	142
SYNEDRA RUMPENS	-	-	-	-	-	-	-	-	-	-
SYNEDRA ULNA	21	11	9	11	16	-	70	-	12	33
EUGLENOPHYCEAE										
EUGLENA SP	-	-	-	-	-	-	-	-	-	-
PHACUS SP	-	-	-	-	-	-	-	-	-	11
TRACHELOMONAS SP	42	43	19	11	8	34	26	30	36	54
CILIOPHORA										
UNID CILIOPHORA	-	-	-	11	-	24	26	-	12	33
ROTIFERA										
UNID ROTIFER	-	-	-	-	-	-	-	5	24	-
TOTAL NUMBER OF ORGANISMS	10539	10067	7056	10319	8915	4305	9769	9692	12942	12335
NUMBER OF TAXA	44	41	39	47	44	41	52	47	49	43

TABLE H-3b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
CYANOPHYCEAE										
ANABAENA SP	-	22	-	-	-	-	-	-	-	********
ANABAENOPSIS SP	-	44	-	-	-	-	19	-	-	********
APHANIZOMENON FLOS-AQUAE	-	-	-	-	-	-	-	-	-	********
APHANOCAPSA DELICATISSIMA	2245	-	118	-	-	-	-	-	-	********
APHANOCAPSA ELACHISTA	1525	-	140	-	126	-	-	-	111	********
APHANOCAPSA PULCHRA	-	-	-	-	-	-	-	-	-	********
APHANOTHECE NIDULANS	-	-	250	-	2794	-	-	179	-	********
CHROOCOCCUS DISPERSUS	-	44	707	15	51	57	47	23	19	********
CHROOCOCCUS LIMNETICUS	-	-	119	5	-	-	-	-	-	********
CHROOCOCCUS MINIMUS	872	-	243	26	-	-	24	49	35	********
CHROOCOCCUS PALLIDUS	-	-	29	-	-	-	-	-	-	********
LYNGBYA CONTORTA	479	-	-	-	-	-	-	246	66	********
LYNGBYA SP	-	38	59	-	-	-	-	-	-	********
MERISMOPEDIA PUNCTATA	-	-	-	-	405	-	-	-	-	********
MERISMOPEDIA TENUISSIMA	3966	-	3477	-	8048	63	-	1113	567	********
MICROCYSTIS INCERTA	1743	-	442	-	675	39	167	331	792	********
OSCILLATORIA LIMNETICA	16616	254	4700	55	717	39	76	6738	3473	********
OSCILLATORIA SP	-	56	-	-	-	-	-	-	-	********
SPIRULINA LAXA	11	-	7	-	8	6	-	25	35	********
CHLOROPHYCEAE										
ANKISTRODESMUS FALCATUS	-	2	-	30	34	-	-	6	3	********
ANKISTRODESMUS NANNOSELENE	44	-	22	44	-	2	1	5	-	********
ANKISTRODESMUS SPIRALIS	109	-	-	72	8	6	1	-	-	********
CARTERIA SP	-	-	-	-	-	4	-	-	-	********
CHLAMYDOMONAS SP	11	-	7	49	42	2	1	-	27	********
CHLORELLA SP	-	-	-	-	-	29	14	-	-	********
CHODATELLA CHODATI	-	-	-	-	-	6	1	-	-	********
CHODATELLA SUBSALSA	-	-	-	-	-	-	-	-	-	********
CHODATELLA WRATISLAWIENSIS	-	-	22	-	8	2	-	-	3	********

TABLE H-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
CLOSTERIUM SP	-	2	-	-	9	2	-	6	-	********
COELASTRUM MICROPORUM	44	7	50	15	-	8	-	-	53	********
COELASTRUM NAFUS	-	-	245	-	-	-	-	-	71	********
COELASTRUM PROBOSCIDEUM	11	-	-	-	-	-	-	-	-	********
COELASTRUM SPHAERICUM	-	-	-	-	-	-	-	-	-	********
COSMARIUM TRILOBULATUM	-	7	-	-	-	-	-	-	-	********
COSMARIUM SP	-	15	-	91	51	225	91	19	22	********
CRUCIGENIA APICULATA	174	34	265	44	-	4	-	-	71	********
CRUCIGENIA QUADRATA	-	-	214	11	-	-	-	-	-	********
CRUCIGENIA TETRAPEDIA	-	-	-	-	-	-	-	-	-	********
DICTYOSPHAERIUM PULCHELLUM	-	59	125	95	67	-	-	-	160	********
DYSMORPHOCOCCUS VARIABILIS	-	-	-	-	-	-	-	-	-	********
ELAKATOTHRIX GELATINOSA	-	-	-	-	-	-	-	-	-	********
EUASTRUM SP	-	-	-	-	-	-	-	-	6	********
GOLENKINIA RADIATA	98	2	162	3	531	114	12	37	22	********
GONIUM PECTORALE	-	-	-	-	-	-	-	111	-	********
KIRCHNERIELLA LUNARIS	98	-	44	110	118	13	3	25	13	********
KIRCHNERIELLA OBESA	-	-	7	-	-	-	-	-	-	********
OOCYSTIS SP	-	5	88	25	-	-	1	-	4	********
PANDORINA MORUM	-	-	-	41	329	-	3	74	-	********
PANDORINA SP	185	-	236	25	135	-	-	-	-	********
PEDIASTRUM BIRADIATUM	44	-	29	-	-	-	-	-	-	********
PEDIASTRUM DUPLEX	-	-	-	-	-	-	-	148	-	********
PEDIASTRUM DUPLEX V CLATHRATUM	-	-	37	-	-	-	-	-	-	********
PEDIASTRUM OBTUSUM	44	-	-	22	-	-	-	-	31	********
PEDIASTRUM SIMPLEX	-	-	442	-	8	-	-	149	-	********
PEDIASTRUM TETRAS V TETRAODON	-	-	-	-	-	-	-	-	-	********
PTEROMONAS SP	44	-	-	-	-	-	-	37	13	********
SCENEDESMUS ABUNDANS	109	-	191	39	84	-	5	37	71	********
SCENEDESMUS ACUMINATUS	87	-	-	-	-	6	-	-	19	********
SCENEDESMUS ARMATUS	65	-	236	55	34	3	6	203	105	********
SCENEDESMUS ARMATUS V BICAUDATA	65	-	29	27	-	5	-	47	137	********
SCENEDESMUS BIJUGA	139	-	206	80	34	-	8	94	53	********
SCENEDESMUS DENTICULATUS	-	-	50	27	17	2	6	35	44	********
SCENEDESMUS QUADRICAUDA	523	5	133	91	143	13	3	117	147	********
SCENEDESMUS SP	207	-	59	-	-	-	6	17	[illegible]	********

AD-A104 408 WATER AND AIR RESEARCH INC GAINESVILLE FL F/G 8/8
WATER QUALITY MANAGEMENT STUDIES LAKE SEMINOLE, APRIL-NOVEMBER --ETC(U)
SEP 81 DACW01-78-C-0101
UNCLASSIFIED ACF-80-10 NL

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TABLE H-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	••••••
SELENASTRUM MINUTUM	11	-	15	-	-	-	-	-	-	••••••••
STAURASTRUM SP	33	17	7	-	17	-	-	-	-	••••••••
TETRAEDRON CAUDATUM	-	7	7	8	-	-	-	-	4	••••••••
TETRAEDRON MINIMUM	11	-	22	16	-	2	-	25	4	••••••••
TETRAEDRON MUTICUM	-	-	15	-	17	4	-	-	-	••••••••
TETRAEDRON REGULARE	-	-	-	-	-	-	-	-	-	••••••••
TETRAEDRON TRIGONUM	-	-	22	-	17	-	-	-	-	••••••••
TETRASTRUM ELEGANS	-	-	-	-	-	16	-	-	-	••••••••
TETRASTRUM HETEROCANTHUM	-	-	-	-	-	-	-	-	-	••••••••
TETRASTRUM STAUROGENIFORME	11	-	177	5	390	-	-	40	-	••••••••
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	-	12	-	-	-	-	1	-	-	••••••••
CRYPTOMONAS SP	-	5	-	-	-	-	-	-	-	••••••••
UNID CRYPTOMONADACEAE	44	-	-	8	8	4	1	-	-	••••••••
DINOPHYCEAE										
GLENODINIUM QUADRIDENS	-	5	-	-	-	-	-	-	-	••••••••
GLENODINIUM SP	-	32	-	-	-	-	-	-	-	••••••••
PERIDINIUM SP	33	27	29	30	8	2	-	25	22	••••••••
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	65	-	7	5	-	-	-	25	3	••••••••
OPHIOCYTIUM CAPITATUM	11	-	-	-	-	4	-	-	-	••••••••

TABLE H-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	2	-	-	-	-	-	-	-	********
DINOBRYON SERTULARIA	-	-	-	5	-	-	-	-	-	********
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES LANCEOLATA V DUBIA	-	5	37	5	-	4	4	-	-	********
AMPHORA OVALIS	-	-	-	-	-	-	1	-	-	********
ASTERIONELLA FORMOSA	-	-	-	-	-	-	-	-	-	********
COSCINODISCUS SP	-	-	-	-	-	2	1	-	-	********
CYCLOTELLA CATENATA	-	-	7	-	-	-	-	-	4	********
CYCLOTELLA GLOMERATA	-	7	88	-	135	25	91	12	-	********
CYCLOTELLA MENEGHINIANA	-	-	-	3	-	-	-	-	-	********
CYCLOTELLA STELLIGERA	109	17	354	74	337	19	4	141	75	********
CYMBELLA MICROCEPHALA	-	73	-	11	-	-	-	-	-	********
CYMBELLA MINUTA	-	-	-	8	-	-	-	-	-	********
CYMBELLA SP	-	-	-	-	-	-	-	-	-	********
EUNOTIA SP	-	-	-	3	-	-	-	-	-	********
FRAGILARIA CONSTRUENS	-	-	-	5	-	-	3	-	-	********
FRAGILARIA CROTONENSIS	22	-	-	14	-	-	-	90	-	********
FRAGILARIA LEPTOSTAURON	-	-	-	30	-	-	-	-	-	********
FRAGILARIA PINNATA	-	-	22	44	101	-	3	12	-	********
GOMPHONEMA PARVULUM	-	2	-	-	-	-	3	-	-	********
MELOSIRA AMBIGUA	152	-	110	-	-	-	-	166	102	********
MELOSIRA DISTANS	272	-	159	33	93	45	8	[illegible]	[illegible]	********
MELOSIRA GRANULATA	567	-	832	-	253	-	-	409	251	********
MELOSIRA GRANULATA V ANGUSTISSIMA	87	-	15	-	67	-	-	37	31	********
MELOSIRA VARIANS	-	-	-	5	-	-	17	-	-	********
NAVICULA CRYPTOCEPHALA	-	2	-	5	-	2	3	-	3	********
NAVICULA EXIGUA V CAPITATA	11	-	7	3	-	-	-	-	-	********
NAVICULA GASTRUM	-	-	-	5	-	-	9	-	-	********
NAVICULA PUPULA	-	-	-	-	9	2	3	-	-	********
NAVICULA PUPULA V RECTANGULARIS	-	-	-	5	-	-	-	-	-	********

TABLE H-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
NITZSCHIA ACICULARIS	33	-	29	8	25	-	-	12	35	********
NITZSCHIA HOLSATICA	33	-	74	-	34	10	1	[illegible]	-	********
NITZSCHIA KUTZINGIANA	11	-	[illegible]	3	-	8	3	12	-	********
NITZSCHIA PALEA	-	-	-	3	-	2	-	-	-	********
NITZSCHIA PALEACEA	-	2	-	3	17	-	-	-	-	********
NITZSCHIA SP	-	-	7	5	-	10	9	12	4	********
SURIRELLA SP	-	-	-	3	-	-	-	-	-	********
SYNEDRA DELICATISSIMA	152	5	37	-	-	-	3	105	44	********
SYNEDRA RUMPENS	-	-	-	-	-	4	6	-	-	********
SYNEDRA ULNA	22	-	7	11	17	15	33	12	4	********
EUGLENOPHYCEAE										
EUGLENA SP	-	-	-	14	-	-	-	6	-	********
PHACUS SP	11	2	7	3	8	2	-	-	-	********
TRACHELOMONAS SP	11	5	7	-	-	-	-	6	13	********
CILIOPHORA										
UNID CILIOPHORA	-	19	15	11	17	6	-	18	22	********
ROTIFERA										
UNID ROTIFER	-	-	-	-	9	-	-	-	-	********
TOTAL NUMBER OF ORGANISMS	31240	931	15418	1569	16032	860	698	11659	7115	******
NUMBER OF TAXA	49	35	63	58	45	44	42	49	47	******

TABLE H-4a

**LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML) **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4
(August 14-17, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
CYANOPHYCEAE										
ANABAENA SP	-	-	-	488	227	376	477	-	672	-
ANABAENOPSIS CYLINDRICA	-	-	-	-	-	-	-	-	-	368
ANABAENOPSIS SP	3975	5716	4730	1674	2433	2157	1446	1461	2148	3351
APHANIZOMENON FLOS-AQUAE	1726	336	2047	697	887	458	431	830	1065	2770
APHANOCAPSA DELICATISSIMA	-	-	-	209	-	-	1338	541	-	-
APHANOCAPSA ELACHISTA	4498	2578	2956	-	4411	1634	461	361	2428	1937
APHANOCAPSA PULCHRA	-	-	273	139	-	-	-	-	-	1937
APHANOTHECE NIDULANS	471	299	-	-	-	-	61	-	-	-
CHROOCOCCUS DISPERSUS	575	-	273	-	500	294	185	-	953	310
CHROOCOCCUS LIMNETICUS	-	37	-	-	-	-	-	-	37	-
CHROOCOCCUS MINIMUS	209	1420	273	488	773	1177	1569	1767	-	4765
CHROOCOCCUS MINUTUS	-	-	-	-	-	-	-	-	2690	-
LYNGBYA CONTORTA	-	317	1046	453	1956	1307	461	667	784	291
LYNGBYA SP	-	654	-	-	-	-	-	-	-	-
MERISMOPEDIA PUNCTATA	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA TENUISSIMA	1534	1195	1273	279	1637	1144	2184	866	1195	1550
MICROCYSTIS INCERTA	-	-	2047	3138	1546	1798	3538	1623	747	736
OSCILLATORIA LIMNETICA	1430	1868	2115	1342	2024	1340	2000	1994	878	988
OSCILLATORIA SP	-	-	273	349	45	-	-	144	-	-
SPIRULINA LAXA	122	-	68	35	23	-	15	54	19	19
SPIRULINA MAJOR	-	-	-	-	-	-	-	-	-	-
CHLOROPHYCEAE										
ACTINASTRUM HANTZSCHII	-	-	-	-	-	-	-	-	-	-
ANKISTRODESMUS FALCATUS	52	-	-	35	-	-	46	-	-	136
ANKISTRODESMUS SPIRALIS	488	430	477	645	546	409	261	180	205	174
CARTERIA SP	-	-	-	-	-	16	-	-	-	-
CHLAMYDOMONAS SP	-	-	23	-	23	49	-	-	131	58
CHLOROGONIUM ELONGATUM	-	-	-	-	-	-	15	-	-	-

TABLE H-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CHODATELLA CHODATI	-	-	-	-	-	-	-	-	-	-
CHODATELLA SUBSALSA	-	-	45	17	-	-	-	18	-	-
CLOSTERIUM SP	-	-	-	-	-	-	-	-	-	-
COELASTRUM MICROPORUM	-	149	45	-	-	16	61	-	-	39
COELASTRUM MORUS	139	-	-	-	546	-	-	-	-	-
COELASTRUM PROBOSCIDEUM	-	-	-	-	-	-	61	-	-	-
COSMARIUM TRILOBULATUM	-	-	-	-	-	-	-	-	-	-
COSMARIUM SP	17	56	23	52	91	16	46	36	37	58
CRUCIGENIA APICULATA	209	149	91	139	136	-	-	198	-	-
CRUCIGENIA QUADRATA	-	-	-	-	-	-	-	-	-	77
CRUCIGENIA TETRAPEDIA	35	-	182	-	-	-	-	-	-	-
DICTYOSPHAERIUM PULCHELLUM	174	187	-	157	819	196	185	667	467	39
DYSMORPHOCOCCUS VARIABILIS	-	-	-	-	-	16	-	18	-	-
EUASTRUM SP	-	-	-	-	23	16	-	18	-	19
GOLENKINIA PAUCISPINA	-	-	-	-	-	-	-	-	-	-
GOLENKINIA RADIATA	-	37	91	17	91	16	46	54	37	58
GONIUM PECTORALE	-	-	-	-	-	-	-	-	-	-
KIRCHNERIELLA LUNARIS	87	-	182	17	159	163	154	72	19	116
KIRCHNERIELLA OBESA	-	-	-	17	-	-	-	-	-	-
MICRACTINIUM PUSILLUM V ELEGANS	-	-	-	-	-	-	-	-	-	-
OOCYSTIS SP	35	37	-	17	45	16	31	54	-	77
PANDORINA MORUM	-	-	-	-	-	-	-	-	75	-
PANDORINA SP	-	-	-	-	-	-	-	-	299	-
PEDIASTRUM BIRADIATUM	-	-	-	-	-	-	-	-	-	77
PEDIASTRUM DUPLEX	-	131	-	-	-	65	-	-	-	-
PEDIASTRUM DUPLEX V CLATHRATUM	139	-	-	227	182	114	123	180	-	252
PEDIASTRUM OBTUSUM	-	37	-	35	91	-	-	-	-	155
POLYEDRIOPSIS SPINULOSA	-	-	-	-	-	-	-	-	-	-
PTEROMONAS SP	-	-	-	-	-	-	-	-	19	39
SCENEDESMUS ABUNDANS	105	-	91	105	23	-	61	72	-	39
SCENEDESMUS ACUMINATUS	-	149	-	-	182	-	-	-	-	-
SCENEDESMUS ARMATUS	70	-	227	70	-	-	123	36	224	387
SCENEDESMUS ARMATUS V BICAUDATA	35	149	91	-	182	65	-	72	187	155
SCENEDESMUS BIJUGA	35	37	-	70	-	33	61	-	75	-
SCENEDESMUS DENTICULATUS	-	112	45	70	-	-	61	36	75	-
SCENEDESMUS QUADRICAUDA	523	392	273	244	546	229	123	523	112	232
SCENEDESMUS SP	-	-	136	35	23	-	-	-	75	39
SCHROEDERIA SETIGERA	-	-	-	-	-	16	-	-	-	-
SELENASTRUM MINUTUM	-	-	23	35	-	-	-	-	-	58
SPONDYLOSIUM PLANUM	-	-	-	-	-	-	-	-	-	-
STAURASTRUM SP	35	37	136	87	68	-	92	144	112	-
TETRAEDRON CAUDATUM	-	-	-	-	-	16	-	-	-	-
TETRAEDRON MINIMUM	17	19	23	35	45	16	15	-	37	-
TETRAEDRON REGULARE	-	-	-	-	-	-	-	18	19	-
TETRAEDRON TRIGONUM	-	-	-	-	-	-	-	-	-	-

TABLE H-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
TETRASTRUM ELEGANS	139	-	-	-	-	-	-	-	149	-
TETRASTRUM HETEROCANTHUM	-	-	-	70	51	65	61	-	-	-
TETRASTRUM STAUROGENIFORME	-	-	-	-	-	-	246	108	75	39
TREUBARIA SETIGERUM	-	-	68	17	45	33	15	-	19	-
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	-	-	-	-	-	-	15	-	-	39
CRYPTOMONAS SP	-	-	-	-	-	-	-	-	-	-
UNID CRYPTOMONADACEAE	-	-	-	17	-	-	-	-	-	-
DINOPHYCEAE										
GLENODINIUM SP	-	-	-	-	-	-	-	-	19	39
GYMNODINIUM SP	-	-	-	-	-	-	-	-	-	39
PERIDINIUM SP	-	-	-	17	-	-	15	-	19	-
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	-	-	-	-	-	-	15	-	19	19
OPHIOCYTIUM CAPITATUM	-	-	-	-	-	-	15	-	-	-
OPHIOCYTIUM CAPITATUM V LONGISPINUM	-	-	23	-	-	-	-	-	-	-
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	-	23	17	-	16	-	-	-	19
MONOSIGMA VARIANS	-	-	-	-	-	-	-	108	-	58

TABLE H-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES LANCEOLATA	-	-	-	-	-	-	-	-	-	-
ACHNANTHES LANCEOLATA V DUBIA	-	-	-	-	-	-	-	18	-	19
AMPHORA OVALIS	-	-	-	-	-	-	-	-	-	-
AMPHORA OVALIS V AFFINIS	-	-	-	-	-	-	-	-	-	-
AMPHORA PERPUSSILLA	-	-	-	-	-	-	-	-	-	-
COCCONEIS PLACENTULA	-	-	-	-	-	-	-	-	-	-
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	-	-	-	-	-	-	-
COSCINODISCUS SP	-	-	23	-	-	-	-	-	-	58
CYCLOTELLA CATENATA	-	-	-	17	-	-	-	-	-	-
CYCLOTELLA GLOMERATA	-	-	-	-	-	-	-	18	-	-
CYCLOTELLA STELLIGERA	105	-	114	70	91	65	46	18	112	97
CYMBELLA LEPTOCEROS	-	-	-	-	-	-	-	-	-	-
CYMBELLA MICROCEPHALA	-	-	-	-	-	-	-	-	-	-
CYMBELLA MINUTA	-	-	-	-	-	-	-	-	-	-
CYMBELLA TUMIDA	-	-	-	-	-	-	-	-	-	-
CYMBELLA SP	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CONSTRUENS	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CROTONENSIS	17	37	23	17	45	33	92	-	56	39
FRAGILARIA LEPTOSTAURON	-	-	-	-	-	-	-	-	-	-
FRAGILARIA PINNATA	-	-	-	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	-	-	-	-	-	-	-	-	-	-
GYROSIGMA ACUMINATUM	-	-	-	-	-	-	-	-	-	-
MELOSIRA AMBIGUA	70	75	-	-	45	-	-	36	-	116
MELOSIRA DISTANS	331	280	523	401	591	474	385	613	560	426
MELOSIRA GRANULATA	244	336	523	436	477	441	323	397	411	232
MELOSIRA GRANULATA V ANGUSTISSIMA	-	-	-	-	-	-	-	126	-	-
MELOSIRA VARIANS	-	-	23	-	-	-	-	-	-	-
NAVICULA CONFERVACEA	-	-	-	-	-	-	-	-	-	-
NAVICULA CRYPTOCEPHALA	-	-	-	-	23	-	-	-	-	-
NAVICULA EXIGUA V CAPITATA	-	-	-	-	-	-	-	-	-	-
NAVICULA FRACTA	-	-	-	-	-	-	-	-	-	-
NAVICULA GASTRUM	-	-	-	-	-	-	-	-	-	-
NAVICULA PUPULA	17	-	-	-	-	16	-	-	-	-
NAVICULA SCUTELLOIDES	-	-	-	-	-	-	-	-	-	-
NAVICULA SP	-	-	-	-	-	-	-	-	-	-
NITZSCHIA ACICULARIS	17	56	-	52	-	82	92	72	56	19
NITZSCHIA HOLSATICA	87	187	68	52	114	65	-	18	224	-
NITZSCHIA IGNORATA	-	-	-	-	-	-	15	-	-	-
NITZSCHIA KUTZINGIANA	17	19	-	17	-	33	-	18	19	19

TABLE H-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
NITZSCHIA OBTUSA	-	-	-	-	-	-	-	-	-	-
NITZSCHIA PALEA	-	37	-	-	-	-	15	-	-	19
NITZSCHIA PALEACEA	17	37	-	-	68	-	15	-	19	-
NITZSCHIA PARVULA	-	-	-	17	-	-	-	-	-	-
NITZSCHIA SIGMA	-	19	-	-	-	-	-	-	-	-
NITZSCHIA TRYBLIONELLA V VICTORIAE	-	-	-	-	-	-	-	-	-	-
NITZSCHIA SP	-	37	91	17	-	-	15	-	-	-
SURIRELLA SP	-	-	-	-	-	-	-	-	-	-
SYNEDRA DELICATISSIMA	70	75	114	70	68	114	15	-	-	39
SYNEDRA RUMPENS	-	-	-	-	-	-	-	-	-	-
SYNEDRA ULNA	17	-	-	17	23	-	-	-	-	-
TERPSINOE MUSICA	-	-	-	-	-	-	-	-	-	-
EUGLENOPHYCEAE										
EUGLENA SP	-	-	-	-	-	-	-	18	19	-
PHACUS ORBICULARIS	-	-	-	-	-	-	15	-	-	-
PHACUS SP	-	-	-	-	-	-	-	36	19	-
TRACHELOMONAS SP	-	-	-	-	-	33	-	18	37	39
CILIOPHORA										
UNID CILIOPHORA	-	19	23	35	-	16	15	36	-	-
TOTAL NUMBER OF ORGANISMS	17883	17742	21217	12773	21964	14654	17156	14262	17653	22680
NUMBER OF TAXA	39	39	43	51	43	43	50	45	47	52

TABLE H-4b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

(August 14-17, 1978) . . .

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
CYANOPHYCEAE										
ANABAENA SP	-	120	-	43	-	-	-	-	-	********
ANABAENOPSIS CYLINDRICA	-	-	-	-	-	-	-	-	-	********
ANABAENOPSIS SP	318	-	-	-	-	35	-	261	-	********
APHANIZOMENON FLOS-AQUAE	2592	-	-	-	-	-	-	784	-	********
APHANOCAPSA DELICATISSIMA	1019	108	2615	-	-	-	-	407	-	********
APHANOCAPSA ELACHISTA	2274	-	-	-	-	-	-	-	713	********
APHANOCAPSA PULCHRA	682	-	-	-	-	-	-	-	-	********
APHANOTHECE NIDULANS	1137	-	-	-	-	30	-	-	-	********
CHROOCOCCUS DISPERSUS	227	9	139	-	-	24	-	349	24	********
CHROOCOCCUS LIMNETICUS	-	-	-	-	123	-	-	-	-	********
CHROOCOCCUS MINIMUS	3729	-	139	-	-	45	-	1060	333	********
CHROOCOCCUS MINUTUS	-	-	-	-	-	-	-	-	-	********
LYNGBYA CONTORTA	523	-	-	-	-	-	-	-	83	********
LYNGBYA SP	682	33	-	-	-	-	-	-	-	********
MERISMOPEDIA PUNCTATA	-	-	-	-	-	18	-	-	-	********
MERISMOPEDIA TENUISSIMA	3184	261	16004	69	2092	96	-	2208	1902	********
MICROCYSTIS INCERTA	910	-	-	-	154	-	-	872	1426	********
OSCILLATORIA LIMNETICA	1956	203	453	536	-	24	7	1395	-	********
OSCILLATORIA SP	-	-	-	26	-	65	-	-	-	********
SPIRULINA LAXA	136	-	-	-	-	-	-	-	-	********
SPIRULINA MAJOR	-	-	-	9	-	-	-	-	-	********
CHLOROPHYCEAE										
ACTINASTRUM HANTZSCHII	-	-	314	-	292	-	-	-	-	********
ANKISTRODESMUS FALCATUS	45	9	70	4	61	1	2	-	-	********
ANKISTRODESMUS SPIRALIS	546	-	35	-	-	-	-	203	83	********
CARTERIA SP	-	-	-	-	31	-	-	-	-	********
CHLAMYDOMONAS SP	-	9	70	-	246	-	P	29	24	********
CHLOROGONIUM ELONGATUM	-	-	-	-	-	-	-	-	-	********

TABLE H-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
CHODATELLA CHODATI	-	-	-	4	-	-	-	-	-	********
CHODATELLA SUBSALSA	-	-	-	4	15	-	-	-	-	********
CLOSTERIUM SP	-	5	-	-	-	-	-	-	-	********
COELASTRUM MICROPORUM	23	9	-	34	15	56	P	116	95	********
COELASTRUM MORUS	-	19	-	-	-	-	10	-	-	********
COELASTRUM PROBOSCIDEUM	91	-	-	-	-	-	-	-	-	********
COSMARIUM TRILOBULATUM	-	2	-	-	-	-	-	-	-	********
COSMARIUM SP	23	24	-	4	-	4	3	29	-	********
CRUCIGENIA APICULATA	-	-	-	-	-	6	6	-	143	********
CRUCIGENIA QUADRATA	-	38	-	-	61	30	-	-	-	********
CRUCIGENIA TETRAPEDIA	-	9	-	-	-	-	-	-	-	********
DICTYOSPHAERIUM PULCHELLUM	-	97	279	-	-	60	-	174	-	********
DYSMORPHOCOCCUS VARIABILIS	23	-	17	-	-	-	-	14	12	********
EUASTRUM SP	-	-	-	-	-	-	-	-	-	********
GOLENKINIA PAUCISPINA	45	-	17	-	-	1	-	-	12	********
GOLENKINIA RADIATA	227	5	436	-	108	6	2	102	-	********
GONIUM PECTORALE	-	-	139	-	123	-	-	-	-	********
KIRCHNERIELLA LUNARIS	45	12	139	17	169	19	9	378	24	********
KIRCHNERIELLA OBESA	-	-	-	-	61	21	9	29	12	********
MICRACTINIUM PUSILLUM V ELEGANS	-	-	70	-	-	-	-	-	-	********
OOCYSTIS SP	136	26	35	-	-	1	-	29	24	********
PANDORINA MORUM	-	-	139	-	31	-	-	29	12	********
PANDORINA SP	-	-	209	-	769	-	-	-	-	********
PEDIASTRUM BIRADIATUM	-	-	-	-	-	-	-	-	-	********
PEDIASTRUM DUPLEX	-	-	-	-	-	-	-	-	-	********
PEDIASTRUM DUPLEX V CLATHRATUM	-	-	-	-	-	-	-	-	-	********
PEDIASTRUM OBTUSUM	-	-	-	-	-	-	-	-	-	********
POLYEDRIOPSIS SPINULOSA	-	-	17	-	-	-	-	-	-	********
PTEROMONAS SP	-	-	-	-	15	1	-	-	-	********
SCENEDESMUS ABUNDANS	-	9	105	-	-	3	-	145	47	********
SCENEDESMUS ACUMINATUS	-	-	70	34	-	-	-	29	-	********
SCENEDESMUS ARMATUS	136	9	209	-	61	-	3	58	143	********
SCENEDESMUS ARMATUS V BICAUDATA	-	-	70	-	-	6	-	145	119	********
SCENEDESMUS BIJUGA	91	19	-	17	-	3	-	-	95	********
SCENEDESMUS DENTICULATUS	45	-	-	-	-	-	-	29	-	********
SCENEDESMUS QUADRICAUDA	182	5	70	26	-	9	9	320	95	********
SCENEDESMUS SP	273	9	70	-	61	9	9	-	119	********
SCHROEDERIA SETIGERA	45	2	52	-	31	-	-	-	-	********
SELENASTRUM MINUTUM	45	-	-	-	-	-	-	-	-	********
SPONDYLOSIUM PLANUM	-	29	-	-	46	27	8	-	-	********
STAURASTRUM SP	136	40	-	-	-	-	P	14	24	********
TETRAEDRON CAUDATUM	-	7	-	4	15	-	-	-	24	********
TETRAEDRON MINIMUM	-	-	-	-	-	-	-	-	-	********
TETRAEDRON REGULARE	-	-	-	-	-	-	-	-	12	********
TETRAEDRON TRIGONUM	-	-	-	4	-	3	-	-	-	********

TABLE H-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
TETRASTRUM ELEGANS	-	-	-	-	-	-	-	-	-	********
TETRASTRUM HETEROCANTHUM	-	-	-	-	-	-	-	-	-	********
TETRASTRUM STAUROGENIFORME	-	-	279	-	185	-	-	58	47	********
TREUBARIA SETIGERUM	45	-	52	-	-	-	-	-	24	********
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	23	12	35	-	261	3	-	-	-	********
CRYPTOMONAS SP	-	2	-	-	-	1	-	-	-	********
UNID CRYPTOMONADACEAE	-	-	-	-	-	-	-	-	-	********
DINOPHYCEAE										
GLENODONIUM SP	-	14	-	-	15	1	P	29	-	********
GYMNODINIUM SP	-	-	-	-	-	-	-	-	-	********
PERIDINIUM SP	-	-	17	4	15	-	-	-	-	********
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	23	-	-	4	31	-	-	-	-	********
OPHIOCYTIUM CAPITATUM	-	-	-	5	-	6	P	14	-	********
OPHIOCYTIUM CAPITATUM V LONGISPINUM	-	-	-	-	-	-	-	-	-	********
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	-	-	-	-	-	-	-	-	********
MONOSIGMA VARIANS	-	-	17	-	-	-	-	-	-	********

TABLE H-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES LANCEOLATA	-	-	-	-	-	-	P	-	-	********
ACHNANTHES LANCEOLATA V DUBIA	23	-	17	60	-	4	3	-	-	********
AMPHORA OVALIS	-	-	-	-	-	1	-	-	-	********
AMPHORA OVALIS V AFFINIS	-	-	-	4	-	-	-	-	-	********
AMPHORA PERPUSSILLA	-	-	-	4	-	-	P	-	-	********
COCCONEIS PLACENTULA	-	-	-	4	-	-	-	-	-	********
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	-	-	1	5	-	-	********
COSCINODISCUS SP	-	-	-	-	-	-	-	14	-	********
CYCLOTELLA CATENATA	-	-	-	-	-	-	-	-	-	********
CYCLOTELLA GLOMERATA	114	2	4759	4	1631	30	-	508	535	********
CYCLOTELLA STELLIGERA	136	5	70	60	31	1	3	73	47	********
CYMBELLA LEPTOCEROS	-	-	-	17	-	-	-	-	-	********
CYMBELLA MICROCEPHALA	-	40	-	150	15	-	-	-	-	********
CYMBELLA MINUTA	-	-	-	9	-	-	-	-	-	********
CYMBELLA TUMIDA	-	-	-	-	-	3	3	-	-	********
CYMBELLA SP	-	-	-	4	-	-	-	-	-	********
FRAGILARIA CONSTRUENS	-	-	-	9	-	-	P	-	-	********
FRAGILARIA CROTONENSIS	91	7	-	-	-	-	3	73	36	********
FRAGILARIA LEPTOSTAURON	-	2	-	99	-	-	-	-	-	********
FRAGILARIA PINNATA	296	-	-	111	-	-	P	73	59	********
GOMPHONEMA PARVULUM	-	-	-	4	15	1	P	-	-	********
GYROSIGMA ACUMINATUM	-	-	-	-	-	6	-	-	-	********
MELOSIRA AMBIGUA	-	-	-	-	-	-	-	-	-	********
MELOSIRA DISTANS	341	5	17	-	-	1	5	334	321	********
MELOSIRA GRANULATA	136	-	-	-	-	-	-	247	238	********
MELOSIRA GRANULATA V ANGUSTISSIMA	-	-	-	-	-	-	-	-	-	********
MELOSIRA VARIANS	23	-	-	-	-	3	2	-	-	********
NAVICULA CONFERVACEA	-	-	-	-	-	-	3	-	-	********
NAVICULA CRYPTOCEPHALA	-	5	-	17	-	3	4	-	-	********
NAVICULA EXIGUA V CAPITATA	-	-	-	17	-	3	P	-	-	********
NAVICULA FRACTA	-	-	-	-	-	1	2	-	-	********
NAVICULA GASTRUM	-	-	-	4	-	-	-	-	-	********
NAVICULA PUPULA	-	-	17	26	-	3	3	-	-	********
NAVICULA SCUTELLOIDES	-	-	-	4	-	-	-	-	-	********
NAVICULA SP	-	-	-	9	-	-	-	-	-	********
NITZSCHIA ACICULARIS	45	-	-	4	-	-	P	-	-	********
NITZSCHIA HOLSATICA	68	-	35	9	-	4	P	131	-	********
NITZSCHIA IGNORATA	-	-	-	-	-	-	-	-	-	********
NITZSCHIA KUTZINGIANA	21	-	52	21	-	-	-	14	24	********

TABLE H-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
NITZSCHIA OBTUSA	-	-	-	-	-	-	P	-	-	*******
NITZSCHIA PALEA	-	-	-	-	-	1	-	-	-	*******
NITZSCHIA PALEACEA	-	-	-	9	-	-	-	-	24	*******
NITZSCHIA PARVULA	-	-	-	-	-	-	-	-	-	*******
NITZSCHIA SIGMA	-	-	-	-	-	-	-	-	-	*******
NITZSCHIA TRYBLIONELLA V VICTORIAE	-	-	-	-	-	1	2	-	12	*******
NITZSCHIA SP	-	-	35	-	-	1	3	-	-	*******
SURIRELLA SP	-	-	-	-	-	1	-	-	-	*******
SYNEDRA DELICATISSIMA	45	7	-	-	-	-	-	14	-	*******
SYNEDRA RUMPENS	-	-	-	-	-	-	3	-	-	*******
SYNEDRA ULNA	-	-	-	-	-	15	6	-	-	*******
TERPSINOE MUSICA	-	-	-	-	-	-	2	-	-	*******
EUGLENOPHYCEAE										
EUGLENA SP	-	-	-	-	-	-	-	-	-	*******
PHACUS ORBICULARIS	-	-	-	-	-	-	-	-	-	*******
PHACUS SP	-	-	-	-	-	-	-	-	-	*******
TRACHELOMONAS SP	45	5	-	-	15	-	-	14	12	*******
CILIOPHORA										
UNID CILIOPHORA	-	14	87	4	-	-	P	44	-	*******
TOTAL NUMBER OF ORGANISMS	23803	1246	27471	1515	6794	698	144	10848	6979	******
NUMBER OF TAXA	48	41	41	44	32	51	43	41	37	******

TABLE H-5a

**LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML) **

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
CYANOPHYCEAE										
ANABAENA SP	-	-	-	-	-	-	-	-	-	-
ANABAENOPSIS SP	7504	11930	6615	3520	8484	1252	254	2374	37	593
APHANIZOMENON FLOS-AQUAE	2479	4134	5261	766	2208	618	1236	2392	237	652
APHANOCAPSA DELICATISSIMA	-	-	-	-	-	-	-	-	639	1151
APHANOCAPSA ELACHISTA	-	-	-	704	-	-	-	1443	-	7810
CHROOCOCCUS DISPERSUS	136	-	-	-	-	79	-	280	77	-
CHROOCOCCUS LIMNETICUS	91	-	123	161	-	-	-	72	58	-
CHROOCOCCUS MINIMUS	432	233	492	-	930	239	924	697	1533	1091
LYNGBYA CONTORTA	1296	2441	1651	1307	2324	1141	1545	1371	2131	5718
LYNGBYA SP	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA GLAUCA	-	-	-	-	-	-	-	-	-	-
MERISMOPEDIA TENUISSIMA	2547	797	2953	966	1860	127	254	1154	933	1325
MICROCYSTIS INCERTA	1300	-	1538	1335	1453	634	317	721	963	5404
OSCILLATORIA LIMNETICA	2501	1743	5394	2776	2789	1315	1870	1392	2209	7880
SPIRULINA LAXA	23	75	-	-	56	16	-	54	39	-
CHLOROPHYCEAE										
ACANTHOSPHAERA ZACHARIASI	-	-	-	-	-	-	-	-	-	-
ACTINASTRUM HANTZSCHII	-	-	-	-	-	-	-	-	-	-
ANKISTRODESMUS FALCATUS	-	100	-	40	-	16	32	54	58	-
ANKISTRODESMUS NANNOSELENE	-	-	-	-	-	-	-	-	19	-
ANKISTRODESMUS SPIRALIS	637	647	1015	392	378	79	76	252	97	559
CARTERIA SP	-	-	-	20	-	16	-	19	-	-
CHLAMYDOMONAS SP	-	-	-	-	-	63	-	-	33	-
CHLORELLA SP	-	-	-	-	-	15	-	-	-	-
CHLOROCOCCUM HUMICOLA	-	-	92	-	-	-	-	18	-	-
CHODATELLA CHODATI	-	-	-	-	-	-	-	-	-	-
CHODATELLA SUBSALSA	-	25	-	20	22	-	-	-	-	-
CLOSTERIUM SP	23	-	-	60	20	-	32	13	13	-

TABLE H-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
COELASTRUM MICROPORUM	-	-	-	80	-	-	-	-	-	419
COELASTRUM MORUS	-	-	-	-	-	-	-	-	-	-
COELASTRUM PROBOSCIDEUM	182	100	246	483	-	63	444	109	933	559
COSMARIUM SP	-	25	-	-	29	-	-	-	-	-
CRUCIGENIA APICULATA	182	100	-	-	-	-	317	72	-	-
CRUCIGENIA QUADRATA	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA TETRAPEDIA	-	-	-	-	-	-	-	-	-	-
DICTYOSPHAERIUM PULCHELLUM	91	-	246	80	-	-	127	126	77	453
DYSMORPHOCOCCUS VARIABILIS	23	-	-	-	-	-	-	-	19	-
EUASTRUM SP	-	-	-	-	-	16	-	-	-	-
GOLENKINIA PAUCISPINA	-	-	31	-	-	-	-	-	-	-
GOLENKINIA RADIATA	-	50	31	60	29	16	32	54	39	35
GONIUM PECTORALE	-	-	-	-	-	-	-	-	-	-
KIRCHNERIELLA CONTORTA	-	-	-	20	-	-	-	-	-	-
KIRCHNERIELLA LUNARIS	182	25	-	181	29	32	190	-	19	70
KIRCHNERIELLA OBESA	205	25	31	-	-	47	47	-	39	70
MICRACTINIUM PUSILLUM	-	-	-	-	-	-	-	-	-	-
OOCYSTIS SP	-	-	31	40	320	-	16	18	116	35
PANDORINA MORUM	-	-	-	-	-	-	-	-	-	-
PANDORINA SP	-	-	-	-	-	127	-	-	-	-
PEDIASTRUM DUPLEX V CLATHRATUM	-	-	-	-	-	127	-	-	-	-
PEDIASTRUM OBTUSUM	-	-	-	-	-	-	390	144	136	-
PEDIASTRUM SIMPLEX	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM TETRAS V TETRAODON	91	-	-	-	-	-	-	-	-	-
PHYMATODOCIS NORDSTEDTIANA	-	-	-	-	-	-	-	-	19	-
POLYEDRIOPSIS SPINULOSA	-	-	31	-	-	-	-	-	-	-
RHIZOCLONIUM SP	-	-	-	-	-	-	-	-	-	-
SCENEDESMUS ABUNDANS	-	149	-	80	-	32	222	36	77	139
SCENEDESMUS ACUMINATUS	-	-	-	80	-	63	-	72	77	-
SCENEDESMUS ARMATUS	91	249	369	241	232	206	158	54	504	419
SCENEDESMUS ARMATUS V BICAUDATA	45	149	-	201	-	190	127	72	39	-
SCENEDESMUS BIJUGA	45	-	-	-	-	95	32	72	116	-
SCENEDESMUS DENTICULATUS	182	-	-	161	116	32	32	-	174	70
SCENEDESMUS QUADRICAUDA	136	149	492	201	465	571	238	270	329	558
SCENEDESMUS SP	-	149	185	161	232	143	63	72	310	209
SCHROEDERIA SETIGERA	-	-	-	-	-	-	-	-	-	-
SELENASTRUM MINUTUM	-	-	31	-	29	16	47	18	-	-
SPERMATOZOOPSIS EXULTANS	-	-	-	-	-	-	-	-	-	-
SPONDYLOSIUM PLANUM	68	-	51	40	29	-	-	18	39	139
STAURASTRUM SP	68	25	-	20	-	16	16	36	19	70
TETRAEDRON CAUDATUM	-	-	-	20	-	-	-	-	19	35
TETRAEDRON MINIMUM	45	25	61	60	203	111	16	-	213	35
TETRAEDRON REGULARE	-	-	-	-	-	-	-	-	-	-
TETRAEDRON TRIGONUM	-	-	-	-	-	-	-	-	-	-
TETRASTRUM ELEGANS	182	-	-	-	-	-	-	-	-	-

TABLE H-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
TETRASTRUM HETEROCANTHUM	-	-	-	-	-	-	51	-	-	-
TETRASTRUM STAUROGENIEFORME	-	-	-	-	-	63	-	-	-	-
TREUBARIA SETIGERUM	-	-	-	23	58	-	-	-	13	
UNID CHLOROPHYCEAE	-	-	-	-	-		-	-	-	-
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	-	-	-	-	-	-	-	-	-	-
UNID CRYPTOMONADACEAE	68	-	-	-	-	-	-	-	53	-
DINOPHYCEAE										
GLENODINIUM SP	-	-	-	-	-	15	-	-	77	105
PERIDINIUM SP	-	-	-	-	-	-	-	-	-	-
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	-	-	-	-	-	-	-	19	19	-
OPHIOCYTIUM CAPITATUM	-	-	-	-	-	-	-	-	-	-
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	-	-	40	-	-	-	19	-	-
DINOBRYON CAMPANULOSTIPITATUM	-	-	-	-	-	-	-	-	-	-
DINOBRYON DIVERGENS	-	-	-	-	-	-	-	-	-	-
DINOBRYON SP	-	-	-	-	-	-	-	-	-	-
LAGYNION SCHERFFELII	-	-	-	-	-	-	-	-	-	-

TABLE H-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES SP	364	174	215	141	320	32	63	13	-	70
ACHNANTHES LANCEOLATA V DUPIA	-	25	-	-	-	-	-	-	-	15
COCCONEIS PLACENTULA V EUGLYPT	-	-	-	-	-	-	-	-	-	-
COSCINODISCUS SP	-	-	-	-	29	-	-	-	-	-
CYCLOTELLA GLOMERATA	45	-	-	40	47	-	-	-	-	-
CYCLOTELLA STELLIGERA	-	124	31	-	174	127	63	36	52	203
CYMBELLA DELICATULA	-	-	-	-	-	-	-	-	-	-
CYMBELLA MICROCEPHALA	-	-	-	-	-	-	-	-	-	-
CYMBELLA TUMIDA	-	-	-	-	-	-	-	-	-	-
CYMBELLA SP	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CONSTRUENS	-	-	-	-	-	-	-	-	-	-
FRAGILARIA CROTONENSIS	-	25	154	121	261	95	47	72	13	-
FRAGILARIA LEPTOSTAURON	-	-	-	-	-	-	-	-	-	-
FRAGILARIA PINNATA	-	-	-	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	-	-	-	-	-	-	-	-	-	-
GYROSIGMA ACUMINATUM	-	-	-	-	-	-	-	-	-	-
MELOSIRA AMBIGUA	-	50	-	-	-	32	-	-	157	-
MELOSIRA DISTANS	227	274	492	292	465	364	340	125	368	337
MELOSIRA GRANULATA	182	249	123	282	320	254	295	236	397	449
NAVICULA CRYPTOCEPHALA	-	-	-	-	29	-	-	-	-	-
NAVICULA EXIGUA V CAPITATA	-	-	-	20	-	-	-	-	-	-
NAVICULA GASTRUM	-	-	-	-	-	-	-	-	-	-
NAVICULA LATENS	-	-	-	-	-	-	-	-	-	-
NAVICULA PUPULA	-	-	-	-	-	-	-	13	13	-
NAVICULA PUPULA V RECTANGULARIS	-	-	31	-	-	-	-	-	-	-
NAVICULA SCUTELLOIDES	-	-	-	-	-	-	-	-	13	-
NAVICULA SP	-	-	-	-	-	-	-	-	-	-
NITZSCHIA ACICULARIS	23	-	-	29	29	47	16	-	-	135
NITZSCHIA HOLSATICA	182	124	61	40	-	-	53	72	-	105
NITZSCHIA KUTZINGIANA	23	-	-	40	29	15	16	54	-	70
NITZSCHIA PALEA	-	-	-	-	-	-	-	-	-	-
NITZSCHIA PALEACEA	-	-	-	-	59	15	-	-	13	35
NITZSCHIA SUBTILIS	-	-	-	-	-	-	-	-	-	-
NITZSCHIA SP	-	25	-	-	-	32	16	18	-	-
PINNULARIA SUDETICA	23	-	-	-	-	-	-	-	-	-
RHIZOSOLENIA SP	-	-	-	-	-	-	16	-	-	-
SYNEDRA DELICATISSIMA	136	75	-	20	-	-	-	56	-	35
SYNEDRA ULNA	-	-	-	-	-	-	-	-	-	-

TABLE H-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
EUGLENOPHYCEAE										
EUGLENA SP	23	-	-	-	-	16	-	-	-	70
PHACUS SP	-	-	-	-	29	-	-	-	-	35
TRACHELOMONAS SP	23	25	-	-	-	-	-	-	39	-
CILIOPHORA										
UNIC CILIOPHORA	-	-	-	-	-	-	32	34	19	35
TOTAL NUMBER OF ORGANISMS	21806	24631	28097	15203	24143	8623	10316	13414	13726	37797
NUMBER OF TAXA	40	34	30	43	35	45	40	45	51	40

TABLE H-5b

**LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML) **

CORPS OF ENGINEERS (CONTRACT DACW01-79-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
CYANOPHYCEAE										
ANABAENA SP	-	206	-	-	-	-	-	-	-	********
ANABAENOPSIS SP	960	-	-	-	-	-	-	472	94	********
APHANIZOMENON FLOS-AQUAE	1700	-	-	-	-	-	-	-	-	********
APHANOCAPSA DELICATISSIMA	1569	-	-	-	-	-	-	-	-	********
APHANOCAPSA ELACHISTA	-	-	-	-	-	-	-	-	-	********
CHROOCOCCUS DISPERSUS	52	48	116	-	-	-	-	34	-	********
CHROOCOCCUS LIMNETICUS	105	14	-	-	27	-	3	-	-	********
CHROOCOCCUS MINIMUS	2249	41	145	-	234	361	35	-	-	********
LYNGBYA CONTORTA	4550	-	-	-	-	-	-	1265	481	********
LYNGBYA SP	-	34	-	-	-	-	-	-	314	********
MERISMOPEDIA GLAUCA	-	144	-	-	-	-	-	-	147	********
MERISMOPEDIA TENUISSIMA	2249	1101	9298	-	4404	-	-	2666	1004	********
MICROCYSTIS INCERTA	5779	-	1453	-	-	-	-	-	337	********
OSCILLATORIA LIMNETICA	3216	317	3458	109	2271	112	113	1417	701	********
SPIRULINA LAXA	-	-	-	-	-	-	-	-	10	********
CHLOROPHYCEAE										
ACANTHOSPHAERA ZACHARIASI	-	-	-	-	-	-	-	17	-	********
ACTINASTRUM HANTZSCHII	209	-	2760	-	248	-	-	202	-	********
ANKISTRODESMUS FALCATUS	-	107	-	9	-	-	-	-	10	********
ANKISTRODESMUS NANNOSELENE	78	-	436	-	206	-	-	67	52	********
ANKISTRODESMUS SPIRALIS	-	-	-	18	-	-	9	166	63	********
CARTERIA SP	-	-	29	-	-	10	-	-	-	********
CHLAMYDOMONAS SP	52	7	436	50	96	31	12	67	10	********
CHLORELLA SP	-	-	1046	27	-	-	-	-	10	********
CHLOROCOCCUM HUMICOLA	-	-	-	-	-	-	-	-	-	********
CHODATELLA CHODATI	-	-	-	-	14	-	-	-	-	********
CHODATELLA SUBSALSA	-	-	58	-	-	-	-	-	21	********
CLOSTERIUM SP	52	-	-	-	-	-	-	-	-	********

TABLE H-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
COELASTRUM MICROPORUM	-	14	-	63	-	6	-	[illegible]	-	********
COELASTRUM MORUS	1255	-	-	-	-	-	-	-	-	********
COELASTRUM PROBOSCIDEUM	-	-	-	-	165	-	9	-	42	********
COSMARIUM SP	26	7	29	-	-	-	-	-	-	********
CRUCIGENIA APICULATA	523	41	-	-	-	-	-	202	-	********
CRUCIGENIA QUADRATA	-	14	-	-	-	6	-	-	167	********
CRUCIGENIA TETRAPEDIA	-	14	-	-	-	-	-	-	42	********
DICTYOSPHAERIUM PULCHELLUM	366	27	378	-	-	19	53	776	-	********
DYSMORPHOCOCCUS VARIABILIS	52	-	-	-	-	-	3	-	-	********
EUASTRUM SP	-	-	-	-	-	-	-	-	-	********
GOLENKINIA PAUCISPINA	-	3	116	-	-	-	-	-	-	********
GOLENKINIA RADIATA	392	7	523	13	454	143	49	135	31	********
GONIUM PECTORALE	-	27	-	-	-	-	-	-	-	********
KIRCHNERIELLA CONTORTA	-	-	-	-	-	-	-	-	-	********
KIRCHNERIELLA LUNARIS	235	38	320	9	41	6	-	67	-	********
KIRCHNERIELLA OBESA	-	10	-	-	-	-	3	51	21	********
MICRACTINIUM PUSILLUM	-	-	-	-	179	75	-	-	-	********
OOCYSTIS SP	105	31	-	-	14	-	-	51	-	********
PANDORINA MORUM	-	-	494	138	-	-	-	-	-	********
PANDORINA SP	-	-	-	-	220	-	-	-	-	********
PEDIASTRUM DUPLEX V CLATHRATUM	105	-	-	-	-	-	-	-	-	********
PEDIASTRUM OBTUSUM	-	-	-	-	-	-	-	-	-	********
PEDIASTRUM SIMPLEX	-	-	-	-	-	-	-	-	167	********
PEDIASTRUM TETRAS V TETRAODON	-	-	-	18	-	-	-	-	-	********
PHYMATODOCIS NORDSTEDTIANA	-	-	-	-	-	-	-	-	-	********
POLYEDRIOPSIS SPINULOSA	26	-	59	-	-	-	-	-	-	********
RHIZOCLONIUM SP	-	-	-	-	-	-	3	-	21	********
SCENEDESMUS ABUNDANS	52	7	116	-	-	-	12	101	42	********
SCENEDESMUS ACUMINATUS	105	-	-	18	-	-	-	-	-	********
SCENEDESMUS ARMATUS	-	14	232	27	27	-	1	101	210	********
SCENEDESMUS ARMATUS V BICAUDATA	261	-	-	18	-	-	-	118	21	********
SCENEDESMUS BIJUGA	-	41	-	-	-	-	-	67	-	********
SCENEDESMUS DENTICULATUS	78	-	58	-	-	25	-	67	63	********
SCENEDESMUS QUADRICAUDA	366	14	-	63	55	12	14	287	385	********
SCENEDESMUS SP	105	7	116	-	138	261	107	232	125	********
SCHROEDERIA SETIGERA	-	7	58	-	14	-	-	17	-	********
SELENASTRUM MINUTUM	-	-	-	-	-	-	-	-	-	********
SPERMATOZOPSIS EXULTANS	-	-	-	-	-	106	105	-	21	********
SPONDYLOSIUM PLANUM	-	21	-	4	-	6	-	17	10	********
STAURASTRUM SP	-	10	-	4	-	-	-	-	-	********
TETRAEDRON CAUDATUM	26	7	58	9	14	-	-	34	10	********
TETRAEDRON MINIMUM	26	3	-	-	-	-	-	85	42	********
TETRAEDRON REGULARE	-	-	-	-	14	-	-	-	-	********
TETRAEDRON TRIGONUM	-	-	-	-	-	-	-	17	10	********
TETRASTRUM ELEGANS	-	-	-	-	-	-	-	-	-	********

TABLE H-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
TETRASTRUM HETEROCANTHUM	-	-	-	-	-	-	-	[illegible]	-	********
TETRASTRUM STAUROGENIIFORME	-	-	29	-	-	-	-	-	-	********
TREUBARIA SETIGERUM	26	-	116	-	14	-	-	17	-	********
UNID CHLOROPHYCEAE	340	-	340	-	234	-	9	219	63	********
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	105	3	58	9	83	25	-	-	-	********
UNID CRYPTOMONADACEAE	52	27	58	22	-	-	-	-	-	********
DINOPHYCEAE										
GLENODINIUM SP	-	3	87	9	-	-	3	17	-	********
PERIDINIUM SP	-	3	-	-	-	-	-	-	10	********
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	-	-	-	-	-	37	3	-	-	********
OPHIOCYTIUM CAPITATUM	-	-	-	-	-	-	9	-	13	********
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	-	-	9	-	-	-	-	-	********
DINOBRYON CAMPANULOSTIPITATUM	-	-	-	50	-	-	-	-	-	********
DINOBRYON DIVERGENS	-	-	-	104	-	-	-	-	-	********
DINOBRYON SP	-	7	-	-	-	-	-	-	-	********
LAGYNION SCHERFFELII	26	-	-	-	-	-	-	-	-	********

TABLE H-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	12	13	14	15	16	17	18	19	******
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES SP	-	-	-	-	-	-	-	-	-	********
ACHNANTHES LANCEOLATA V DUPIA	26	3	-	4	14	-	-	-	-	********
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	4	-	-	3	-	-	********
COSCINODISCUS SP	52	7	-	-	27	25	12	34	10	********
CYCLOTELLA GLOMERATA	131	-	523	13	344	12	3	67	63	********
CYCLOTELLA STELLIGERA	78	21	174	27	-	12	3	101	21	********
CYMBELLA DELICATULA	-	-	-	4	-	-	-	-	-	********
CYMBELLA MICROCEPHALA	-	77	-	45	-	-	-	-	10	********
CYMBELLA TUMIDA	-	-	-	-	-	-	3	-	-	********
CYMBELLA SP	-	-	-	4	-	-	-	-	-	********
FRAGILARIA CONSTRUENS	-	-	-	9	-	-	-	-	-	********
FRAGILARIA CROTONENSIS	-	-	-	-	-	-	-	-	-	********
FRAGILARIA LEPTOSTAURON	-	7	-	50	-	-	-	-	-	********
FRAGILARIA PINNATA	-	3	-	68	-	-	-	-	-	********
GOMPHONEMA PARVULUM	-	-	-	18	-	-	-	-	-	********
GYROSIGMA ACUMINATUM	-	-	-	-	-	-	3	-	-	********
MELOSIRA AMBIGUA	-	-	-	-	-	-	-	-	-	********
MELOSIRA DISTANS	497	3	-	4	14	-	32	186	157	********
MELOSIRA GRANULATA	26	-	-	-	-	-	-	67	21	********
NAVICULA CRYPTOCEPHALA	-	-	-	-	-	-	-	-	-	********
NAVICULA EXIGUA V CAPITATA	-	-	-	13	-	6	5	-	-	********
NAVICULA GASTRUM	-	-	-	4	-	6	-	-	-	********
NAVICULA LATENS	-	-	-	-	-	6	-	-	-	********
NAVICULA PUPULA	26	-	-	-	-	12	-	-	-	********
NAVICULA PUPULA V RECTANGULARIS	-	-	-	4	-	-	-	-	-	********
NAVICULA SCUTELLOIDES	-	-	-	-	-	-	-	-	-	********
NAVICULA SP	-	-	-	4	-	25	12	-	-	********
NITZSCHIA ACICULARIS	26	-	-	-	-	-	3	17	-	********
NITZSCHIA HOLSATICA	183	-	116	18	-	19	3	34	21	********
NITZSCHIA KUTZINGIANA	-	3	-	4	-	-	16	17	-	********
NITZSCHIA PALEA	-	-	-	-	-	6	-	-	-	********
NITZSCHIA PALEACEA	-	3	-	-	-	-	-	-	-	********
NITZSCHIA SUBTILIS	-	-	-	-	-	-	-	-	10	********
NITZSCHIA SP	-	-	-	-	-	6	-	-	10	********
PINNULARIA SUDETICA	-	-	-	-	-	-	-	-	-	********
RHIZOSOLENIA SP	26	-	-	-	-	-	-	-	-	********
SYNEDRA DELICATISSIMA	-	-	-	4	-	-	-	17	-	********
SYNEDRA ULNA	-	7	-	4	14	-	3	17	-	********

TABLE H-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	12	13	14	15	16	17	18	19	******
EUGLENOPHYCEAE										
EUGLENA SP	-	3	29	9	-	6	-	17	-	*******
PHACUS SP	-	-	-	-	-	-	-	-	-	*******
TRACHELOMONAS SP	-	-	-	9	-	-	3	34	21	*******
CILIOPHORA										
UNID CILIOPHORA	78	17	-	9	27	-	-	17	10	*******
TOTAL NUMBER OF ORGANISMS	28630	2582	23330	1101	9605	1301	688	[illegible]	5621	******
NUMBER OF TAXA	46	40	34	46	29	29	34	46	46	******

TABLE H-6a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 6

(November 28-30, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
CYANOPHYCEAE										
APHANOCAPSA DELICATISSIMA	848	-	402	-	668	-	-	475	872	-
APHANOCAPSA ELACHISTA	3675	951	-	503	-	-	-	-	-	-
APHANOTHECE NIDULANS	226	-	-	-	-	-	-	-	-	-
CHROOCOCCUS DISPERSUS	-	1379	362	1106	-	478	325	-	349	996
CHROOCOCCUS SP	-	-	-	-	-	-	-	-	-	-
GOMPHOSPHAERIA WICHURAE	-	-	-	-	-	-	-	-	-	-
LYNGBYA CONTORTA	1131	-	-	201	-	-	72	-	-	-
MERISMOPEDIA TENUISSIMA	113	507	429	161	-	359	-	-	-	-
MICROCYSTIS INCERTA	2403	2631	1639	1006	334	2241	721	1268	3138	2989
OSCILLATORIA LIMNETICA	-	-	107	-	-	598	856	206	70	473
OSCILLATORIA SP	-	-	-	-	-	-	-	-	-	-
CHLOROPHYCEAE										
ACTINASTRUM HANTZSCHII	-	-	-	-	-	-	-	-	-	199
ANKISTRODESMUS FALCATUS	14	16	13	30	-	105	54	-	-	124
ANKISTRODESMUS NANNOSELENE	99	-	40	20	33	-	72	-	-	25
ANKISTRODESMUS SPIRALIS	99	63	67	90	111	90	252	190	366	349
CARTERIA SP	-	-	-	10	-	-	-	-	-	-
CHLAMYDOMONAS SP	42	-	27	40	11	15	36	95	139	-
CHLORELLA SP	-	32	-	-	67	-	-	-	-	-
CHODATELLA CHODATI	-	-	-	-	-	-	-	-	-	-
CHODATELLA SUBSALSA	-	-	-	-	-	-	-	16	-	-
COELASTRUM MICROPORUM	226	-	-	-	44	-	307	63	35	-
COELASTRUM MORUS	-	-	107	80	445	-	-	-	-	-
COELASTRUM PROBOSCIDEUM	-	-	54	-	-	-	72	-	52	199
COELASTRUM SPHAERICUM	-	-	-	-	-	-	-	-	-	-
COSMARIUM SP	-	-	-	-	-	-	-	-	-	-
CRUCIGENIA APICULATA	339	254	-	80	178	598	-	-	488	199

TABLE H-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 1	2	3	4	5	6	7	8	9	10
CRUCIGENIA QUADRATA	-	-	-	-	-	-	-	-	-	100
CRUCIGENIA TETRAPEDIA	-	-	322	-	178	-	-	-	-	25
DICTYOSPHAERIUM PULCHELLUM	-	222	54	40	-	194	252	206	70	100
ELAKATOTHRIX GELATINOSA	-	16	-	-	-	-	-	-	-	50
EUASTRUM SP	-	16	13	-	-	-	-	-	-	-
GOLENKINIA RADIATA	56	32	13	20	11	60	18	-	35	25
GONIUM PECTORALE	-	-	-	-	-	-	-	-	-	-
KIRCHNERIELLA LUNARIS	141	47	201	20	89	149	108	79	70	274
KIRCHNERIELLA OBESA	28	16	-	10	-	15	-	16	-	25
OOCYSTIS SP	14	-	13	-	67	-	-	-	-	-
PANDORINA MORUM	-	-	-	10	-	-	-	-	-	-
PANDORINA SP	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM BIRADIATUM	-	63	-	40	89	112	-	-	70	-
PEDIASTRUM BORYANUM	-	-	-	-	-	239	-	-	-	-
PEDIASTRUM DUPLEX V CLATHRATUM	-	-	-	-	-	-	-	-	-	-
PEDIASTRUM OBTUSUM	226	127	54	151	89	112	361	32	-	224
PEDIASTRUM TETRAS V TETRAODON	-	-	-	-	-	-	18	-	70	-
POLYEDRIOPSIS SPINULOSA	-	-	-	-	-	-	-	-	-	-
SCENEDESMUS ABUNDANS	28	222	27	60	67	30	216	95	70	75
SCENEDESMUS ACUMINATUS	113	63	107	90	44	194	72	364	209	25
SCENEDESMUS ARMATUS	56	-	54	40	-	344	-	32	-	-
SCENEDESMUS ARMATUS V BICAUDATA	523	349	483	342	389	448	505	507	575	946
SCENEDESMUS BIJUGA	-	-	-	-	111	112	90	63	-	50
SCENEDESMUS DENTICULATUS	113	127	80	101	44	119	180	-	70	149
SCENEDESMUS QUADRICAUDA	834	713	630	553	879	613	929	571	732	921
SCENEDESMUS SP	113	269	134	70	22	30	216	159	139	498
SCHROEDERIA SETIGERA	-	-	-	-	-	-	18	16	17	25
SELANASTRUM MINUTUM	-	-	-	-	-	-	36	-	-	50
SPERMATOZOOPSIS EXULTANS	-	-	-	-	-	-	-	-	-	-
SPONDYLOSIUM PLANUM	28	-	13	20	22	-	126	-	-	-
TETRAEDRON CAUDATUM	-	-	27	10	-	-	18	-	17	25
TETRAEDRON MINIMUM	14	16	54	10	22	105	36	47	17	50
TETRAEDRON MUTICUM	-	-	-	-	-	-	-	-	-	-
TETRAEDRON REGULARE	-	-	27	-	-	15	18	-	-	-
TETRAEDRON TRIGONUM	-	-	-	-	-	-	18	16	-	25
TETRASTRUM HETEROCANTHUM	56	159	54	40	-	60	-	-	-	-
TETRASTRUM STAUROGENIFORME	-	-	54	-	-	-	72	-	209	-
TREUBARIA SETIGERUM	14	32	-	-	-	-	18	-	35	-

TABLE H-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	-	-	-	-	-	-	-	-	-	-
DINOPHYCEAE										
GLENODINIUM SP	14	32	54	30	33	45	36	-	-	25
PERIDINIUM SP	-	-	-	-	22	-	-	-	-	-
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	-	-	-	-	-	-	-	-	-	-
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	-	13	-	-	-	18	-	17	-
LAGYNION SCHERFFELII	-	-	-	-	-	-	-	16	52	25
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES SP	-	-	-	-	-	-	-	-	-	25
ACHNANTHES LANCEOLATA V DUBIA	-	-	13	-	11	33	-	32	-	25
ASTERIONELLA FORMOSA	-	-	-	-	-	-	-	16	-	-

TABLE H-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
COCCONEIS PLACENTULA V EUGLYPTA	-	-	-	-	-	-	-	-	-	-
COSCINODISCUS SP	14	16	54	-	-	60	18	15	35	149
CYCLOTELLA CATENATA	-	16	-	-	-	-	-	-	-	-
CYCLOTELLA GLOMERATA	-	-	-	-	-	-	-	-	-	-
CYCLOTELLA STELLIGERA	113	143	40	90	44	45	162	47	87	50
CYMBELLA ASPERA	-	-	-	-	-	-	-	-	-	-
CYMBELLA LEPTOCEROS	-	-	-	-	-	-	-	-	-	-
CYMBELLA MICROCEPHALA	-	-	-	-	-	-	-	-	-	-
CYMBELLA MINUTA	-	47	-	-	-	-	-	-	-	-
CYMBELLA TUMIDA	-	-	-	-	-	-	-	-	-	-
CYMBELLA VENTRICOSA	-	-	-	-	-	-	-	-	-	-
EUNOTIA CURVATA	-	-	-	10	-	-	-	-	-	-
EUNOTIA SP	-	-	-	-	-	-	18	16	-	-
FRAGILARIA CONSTRUENS	-	16	-	-	11	30	-	63	-	-
FRAGILARIA CROTONENSIS	-	-	-	-	-	-	-	-	-	-
FRAGILARIA LEPTOSTAURON	-	-	-	-	-	-	-	-	-	-
GOMPHONEMA GRACILE	-	-	-	-	-	-	-	-	-	-
GOMPHONEMA PARVULUM	-	-	-	-	-	-	-	-	-	-
MELOSIRA AMBIGUA	198	95	241	40	111	119	18	295	261	349
MELOSIRA DISTANS	339	571	429	402	267	294	559	349	436	448
MELOSIRA GRANULATA	198	412	215	70	167	119	343	317	122	647
MELOSIRA GRANULATA V ANGUSTISSIMA	-	-	107	-	78	30	-	43	-	-
MELOSIRA VARIANS	-	-	-	-	11	-	-	-	-	-
NAVICULA CONFERVACEA	-	-	-	-	-	-	-	-	-	-
NAVICULA CRYPTOCEPHALA	-	-	-	-	-	-	19	-	-	-
NAVICULA ELGINENSIS	-	-	-	-	-	-	-	-	-	-
NAVICULA EXIGUA V CAPITATA	-	-	-	-	-	-	-	-	-	-
NAVICULA GASTRUM	-	16	13	-	-	-	-	-	-	-
NAVICULA GREGARIA	-	-	-	10	-	-	-	-	-	-
NAVICULA LATENS	-	15	-	-	-	-	-	-	-	-
NAVICULA PUPULA	-	16	13	-	-	15	18	-	-	25
NAVICULA PUPULA V RECTANGULARIS	-	-	-	-	-	-	-	-	-	-
NAVICULA SALINARUM V INTERMEDIA	-	-	-	10	-	-	-	-	-	-
NAVICULA SCUTELLOIDES	-	-	-	-	-	-	-	-	-	-
NAVICULA SP	-	-	-	-	-	15	-	-	17	-
NITZSCHIA ACICULARIS	14	-	-	-	11	15	19	47	52	124
NITZSCHIA HOLSATICA	56	47	90	90	100	15	36	15	70	199
NITZSCHIA KUTZINGIANA	-	-	27	30	-	15	36	16	-	25
NITZSCHIA OBTUSA V SCALPELLIFORMIS	14	-	-	-	-	-	-	-	-	-
NITZSCHIA PALEA	-	-	13	-	-	-	18	-	-	25
NITZSCHIA PALEACEA	-	-	-	-	-	-	36	-	-	-
NITZSCHIA SP	14	32	27	20	22	60	19	47	17	25
PINNULARIA SP	-	-	-	-	-	-	-	-	-	-
SURIRELLA ATOMUS	-	16	-	-	-	-	-	-	-	-
SURIRELLA LINEARIS	-	-	-	-	-	-	-	-	-	-

TABLE H-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	1	2	3	4	5	6	7	8	9	10
SURIRELLA SP	-	-	-	10	-	-	18	-	-	-
SYNEDRA DELICATISSIMA	-	32	-	10	-	-	-	-	-	25
SYNEDRA DELICATISSIMA V ANGUSTISSIMA	-	16	-	-	-	-	-	-	-	-
SYNEDRA GOULARDI	-	-	-	-	-	-	-	-	-	-
SYNEDRA RUMPENS	-	15	-	-	-	-	-	-	-	-
SYNEDRA ULNA	-	-	-	-	-	-	-	-	-	-
TABELLARIA FLOCCULOSA V FLOCCULOSA	-	-	-	-	-	-	18	-	-	-
EUGLENOPHYCEAE										
EUGLENA SP	14	-	-	20	-	-	-	-	-	-
LEPOCINCLIS TEXTA	-	-	13	-	-	-	-	-	-	-
PHACUS SP	-	32	13	-	-	15	-	-	-	-
TRACHELOMONAS SP	14	-	-	30	11	-	-	16	17	-
CILIOPHORA										
UNID CILIOPHORA	-	47	27	10	-	-	18	16	-	25
ROTIFERA										
KERATELLA COCHLEARIS	-	-	-	-	-	-	18	-	-	-
UNID ROTIFER	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	12574	9955	7023	5836	4913	8368	7535	5893	9097	11431
NUMBER OF TAXA	40	45	42	46	39	42	51	38	37	45

TABLE H-6b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - PHYTOPLANKTON (CELLS/ML)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 6

(November 28-30, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: 11	13	14	15	16	17	18	******	******	******
CYANOPHYCEAE										
APHANOCAPSA DELICATISSIMA	-	-	-	-	-	-	-	********	********	********
APHANOCAPSA ELACHISTA	-	-	-	-	-	-	-	********	********	********
APHANOTHECE NIDULANS	-	-	-	-	-	-	-	********	********	********
CHROOCOCCUS DISPERSUS	139	-	35	-	-	-	37	********	********	********
CHROOCOCCUS SP	-	-	-	-	-	1	-	********	********	********
GOMPHOSPHAERIA WICHURAE	-	-	1046	-	-	-	-	********	********	********
LYNGBYA CONTORTA	-	-	-	-	-	-	-	********	********	********
MERISMOPEDIA TENUISSIMA	-	-	-	-	-	-	209	********	********	********
MICROCYSTIS INCERTA	-	-	-	545	67	-	1691	********	********	********
OSCILLATORIA LIMNETICA	-	-	-	-	30	-	-	********	********	********
OSCILLATORIA SP	-	-	70	-	-	-	-	********	********	********
CHLOROPHYCEAE										
ACTINASTRUM HANTZSCHII	-	-	-	-	-	-	-	********	********	********
ANKISTRODESMUS FALCATUS	70	-	-	-	-	-	56	********	********	********
ANKISTRODESMUS NANNOSELENE	35	24	-	-	2	-	75	********	********	********
ANKISTRODESMUS SPIRALIS	209	24	9	-	3	1	131	********	********	********
CARTERIA SP	35	24	-	-	-	-	-	********	********	********
CHLAMYDOMONAS SP	35	95	-	44	8	1	19	********	********	********
CHLORELLA SP	-	-	-	-	-	1	-	********	********	********
CHODATELLA CHODATI	-	-	-	-	-	-	19	********	********	********
CHODATELLA SUBSALSA	70	47	-	-	-	-	19	********	********	********
COELASTRUM MICROPORUM	-	24	-	-	-	-	-	********	********	********
COELASTRUM MORUS	-	-	-	-	-	-	-	********	********	********
COELASTRUM PROBOSCIDEUM	-	-	-	-	-	-	-	********	********	********
COELASTRUM SPHAERICUM	279	-	-	-	-	-	-	********	********	********
COSMARIUM SP	35	-	9	-	-	-	-	********	********	********
CRUCIGENIA APICULATA	139	-	-	-	-	-	-	********	********	********

TABLE H-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	13	14	15	16	17	18	******	******	******
CRUCIGENIA QUADRATA	-	-	-	-	-	5	-	********	********	********
CRUCIGENIA TETRAPEDIA	-	-	-	-	-	-	-	********	********	********
DICTYOSPHAERIUM PULCHELLUM	-	-	-	-	-	-	-	********	********	********
ELAKATOTHRIX GELATINOSA	-	-	-	-	-	-	-	********	********	********
EUASTRUM SP	-	-	-	-	-	-	-	********	********	********
GOLENKINIA RADIATA	70	-	-	-	2	-	37	********	********	********
GONIUM PECTORALE	558	-	-	-	-	-	-	********	********	********
KIRCHNERIELLA LUNARIS	418	24	-	-	2	-	37	********	********	********
KIRCHNERIELLA OBESA	35	-	-	-	-	-	19	********	********	********
OOCYSTIS SP	-	-	-	-	-	-	-	********	********	********
PANDORINA MORUM	-	-	-	-	-	-	-	********	********	********
PANDORINA SP	-	380	-	-	-	-	-	********	********	********
PEDIASTRUM BIRADIATUM	-	-	-	-	-	-	-	********	********	********
PEDIASTRUM BORYANUM	-	-	-	-	-	-	-	********	********	********
PEDIASTRUM DUPLEX V CLATHRATUM	279	-	-	-	-	-	-	********	********	********
PEDIASTRUM OBTUSUM	837	-	70	-	2	-	299	********	********	********
PEDIASTRUM TETRAS V TETRAODON	-	-	-	-	-	-	-	********	********	********
POLYEDRIOPSIS SPINULOSA	35	-	-	-	-	-	-	********	********	********
SCENEDESMUS ABUNDANS	70	47	35	87	-	-	75	********	********	********
SCENEDESMUS ACUMINATUS	-	-	-	-	-	-	-	********	********	********
SCENEDESMUS ARMATUS	-	-	-	-	-	-	-	********	********	********
SCENEDESMUS ARMATUS V BICAUDATA	488	-	35	-	-	-	112	********	********	********
SCENEDESMUS BIJUGA	-	95	61	22	-	3	-	********	********	********
SCENEDESMUS DENTICULATUS	279	-	17	-	-	-	-	********	********	********
SCENEDESMUS QUADRICAUDA	767	143	70	22	7	3	299	********	********	********
SCENEDESMUS SP	70	47	-	-	-	-	224	********	********	********
SCHROEDERIA SETIGERA	-	-	-	-	-	-	-	********	********	********
SELENASTRUM MINUTUM	35	-	-	-	-	-	-	********	********	********
SPERMATOZOOPSIS EXULTANS	-	119	-	-	23	4	-	********	********	********
SPONDYLOSIUM PLANUM	35	-	9	-	-	-	37	********	********	********
TETRAEDRON CAUDATUM	35	-	-	-	-	-	19	********	********	********
TETRAEDRON MINIMUM	35	-	9	-	-	-	19	********	********	********
TETRAEDRON MUTICUM	-	-	9	-	-	-	-	********	********	********
TETRAEDRON REGULARE	-	-	-	-	-	-	-	********	********	********
TETRAEDRON TRIGONUM	-	-	9	-	-	-	-	********	********	********
TETRASTRUM HETERACANTHUM	-	-	-	-	-	-	37	********	********	********
TETRASTRUM STAUROGENIAEFORME	-	-	-	-	-	-	-	********	********	********
TREUBARIA SETIGERUM	-	-	-	-	-	-	-	********	********	********

TABLE H-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	13	14	15	16	17	18	******	******	******
CRYPTOPHYCEAE										
CRYPTOMONAS EROSA	-	-	-	87	5	4	56	*******	*******	*******
DINOPHYCEAE										
GLENODINIUM SP	35	24	-	-	-	-	-	*******	*******	*******
PERIDINIUM SP	-	-	-	-	-	-	-	*******	*******	*******
XANTHOPHYCEAE										
ARACHNOCHLORIS SP	35	47	9	-	-	-	-	*******	*******	*******
CHRYSOPHYCEAE										
CHRYSOCOCCUS SP	-	-	-	-	3	-	-	*******	*******	*******
LAGYNION SCHERFFELII	-	-	-	-	2	-	-	*******	*******	*******
BACILLARIOPHYTA (DIATOMS)										
ACHNANTHES SP	-	-	-	-	2	-	-	*******	*******	*******
ACHNANTHES LANCEOLATA V DUBIA	-	47	35	-	7	5	19	*******	*******	*******
ASTERIONELLA FORMOSA	-	-	-	-	-	-	-	*******	*******	*******

TABLE H-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML) 11	13	14	15	16	17	18	******	******	******
COCCONEIS PLACENTULA V EUGLYPTA	-	-	35	-	7	3	-	********	********	********
COSCINODISCUS SP	35	-	-	-	-	-	-	********	********	********
CYCLOTELLA CATENATA	-	-	-	-	-	-	-	********	********	********
CYCLOTELLA GLOMERATA	4707	5278	131	1460	67	1	2559	********	********	********
CYCLOTELLA STELLIGERA	279	119	9	131	3	-	75	********	********	********
CYMBELLA ASPERA	-	-	9	-	-	-	-	********	********	********
CYMBELLA LEPTOCEROS	-	-	183	-	-	-	-	********	********	********
CYMBELLA MICROCEPHALA	-	-	200	-	-	-	19	********	********	********
CYMBELLA MINUTA	-	-	-	-	-	-	-	********	********	********
CYMBELLA TUMIDA	-	-	9	-	-	-	-	********	********	********
CYMBELLA VENTRICOSA	-	-	-	-	2	-	-	********	********	********
EUNOTIA CURVATA	-	-	-	-	-	-	-	********	********	********
EUNOTIA SP	-	-	-	-	-	-	-	********	********	********
FRAGILARIA CONSTRUENS	-	-	61	-	-	1	-	********	********	********
FRAGILARIA CROTONENSIS	-	-	44	-	-	3	-	********	********	********
FRAGILARIA LEPTOSTAURON	35	-	662	-	-	-	-	********	********	********
GOMPHONEMA GRACILE	-	-	9	-	-	-	-	********	********	********
GOMPHONEMA PARVULUM	-	-	44	-	-	1	-	********	********	********
MELOSIRA AMBIGUA	209	-	375	-	-	-	-	********	********	********
MELOSIRA DISTANS	383	238	52	120	25	3	205	********	********	********
MELOSIRA GRANULATA	-	-	-	-	-	-	-	********	********	********
MELOSIRA GRANULATA V ANGUSTISSIMA	-	-	-	-	-	-	-	********	********	********
MELOSIRA VARIANS	-	-	-	-	-	-	-	********	********	********
NAVICULA CONFERVACEA	-	-	-	-	-	1	-	********	********	********
NAVICULA CRYPTOCEPHALA	-	-	-	11	3	10	-	********	********	********
NAVICULA ELGINENSIS	-	-	-	-	8	-	-	********	********	********
NAVICULA EXIGUA V CAPITATA	-	-	-	-	20	17	-	********	********	********
NAVICULA GASTRUM	-	24	-	-	-	-	-	********	********	********
NAVICULA GREGARIA	-	-	-	-	-	-	-	********	********	********
NAVICULA LATENS	-	-	-	-	-	-	-	********	********	********
NAVICULA PUPULA	-	-	-	-	10	17	-	********	********	********
NAVICULA PUPULA V RECTANGULARIS	-	-	9	11	-	1	-	********	********	********
NAVICULA SALINARIUM V INTERMEDIA	-	-	26	-	17	35	-	********	********	********
NAVICULA SCUTELLOIDES	-	-	-	-	2	-	-	********	********	********
NAVICULA SP	35	-	52	-	10	12	-	********	********	********
NITZSCHIA ACICULARIS	-	-	17	-	3	1	-	********	********	********
NITZSCHIA HOLSATICA	209	-	-	-	2	3	-	********	********	********
NITZSCHIA KUTZINGIANA	35	-	-	-	3	-	-	********	********	********
NITZSCHIA OBTUSA V SCALPELLIFORMIS	-	-	-	-	-	-	-	********	********	********
NITZSCHIA PALEA	-	-	-	-	-	-	-	********	********	********
NITZSCHIA PALEACEA	-	-	-	-	2	1	-	********	********	********
NITZSCHIA SP	70	-	9	-	3	4	-	********	********	********
PINNULARIA SP	-	-	-	-	-	1	-	********	********	********
SURIRELLA ATOMUS	-	-	-	-	-	-	-	********	********	********
SURIRELLA LINEARIS	-	-	-	11	-	1	-	********	********	********

TABLE H-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (CELLS/ML)									
	11	13	14	15	16	17	18	******	******	******
SURIRELLA SP	-	-	-	-	-	-	-	*******	*******	*******
SYNEDRA DELICATISSIMA	-	-	17	-	5	-	-	*******	*******	*******
SYNEDRA DELICATISSIMA V ANGUSTISSIMA	-	-	-	-	-	-	-	*******	*******	*******
SYNEDRA GOULARDI	-	-	-	-	-	5	-	*******	*******	*******
SYNEDRA RUMPENS	-	-	-	-	-	-	-	*******	*******	*******
SYNEDRA ULNA	-	-	-	-	2	5	-	*******	*******	*******
TABELLARIA FLOCCULOSA V FLOCCULOSA	-	-	-	-	-	-	-	*******	*******	*******
EUGLENOPHYCEAE										
EUGLENA SP	35	-	17	-	2	1	-	*******	*******	*******
LEPOCINCLIS TEXTA	-	-	-	-	-	-	-	*******	*******	*******
PHACUS SP	-	-	-	-	-	-	-	*******	*******	*******
TRACHELOMONAS SP	-	-	-	-	-	-	-	*******	*******	*******
CILIOPHORA										
UNID CILIOPHORA	35	-	17	-	-	-	-	*******	*******	*******
ROTIFERA										
KERATELLA COCHLEARIS	-	-	-	-	-	-	-	*******	*******	*******
UNID ROTIFER	-	-	-	11	-	-	-	*******	*******	*******
TOTAL NUMBER OF ORGANISMS	11229	6870	3524	2562	361	163	6483	******	******	******
NUMBER OF TAXA	40	20	39	13	33	32	27	******	******	******

APPENDIX I

ZOOPLANKTON

LIST OF TABLES

TABLE I-1a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	107	271	214	207	193	308	73	21	296	178
CYCLOPOIDA										
CYCLOPS BICUSPIDATUS THOMASI	-	-	-	-	-	-	-	-	-	-
CYCLOPS SP	238	193	92	107	245	482	447	93	197	100
MESOCYCLOPS EDAX	83	174	107	14	175	54	119	35	-	15
TROPOCYCLOPS PRASINUS	-	-	-	-	-	-	-	-	-	-
NAUPLII	1155	1780	1421	635	1244	562	839	116	806	1135
CLADOCERA										
ALONA SP	-	19	-	-	-	-	-	-	-	-
ALONELLA SP	-	-	-	-	-	-	-	-	-	-
BOSMINA LONGIROSTRIS	1952	3097	2781	1783	2960	2263	976	532	2532	859
BOSMINOPSIS DEITERSI	-	-	-	-	-	-	-	-	-	-
CERIODAPHNIA SP	-	-	-	-	-	-	-	-	-	-
CHYDORUS SP	-	-	-	-	-	-	-	-	-	-
DAPHNIA PARVULA	428	329	290	128	-	696	347	56	329	100
DAPHNIA SP	12	-	-	-	-	-	-	-	-	-
DIAPHANOSOMA BRACHYURUM	48	77	92	-	88	27	27	-	33	69
EUBOSMINA SP	-	-	-	7	-	-	-	-	-	-
HOLOPEDIUM AMAZONICUM	71	193	15	25	-	-	-	44	-	-
SIMOCEPHALUS SP	-	19	-	-	-	-	-	-	-	-

TABLE I-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
OSTRACODA										
CYPRIS SP	-	-	-	-	-	-	-	-	-	-
ROTIFERA										
ANEUROPSIS SP	-	-	-	-	-	-	-	-	-	-
ASCOMORPHA SP	-	19	-	-	-	-	-	-	-	-
ASPLANCHNA PRIODONTA	-	-	-	-	-	-	-	12	-	-
BRACHIONUS SP	-	-	-	-	-	-	-	-	-	8
CEPHALADELLA SP	-	19	-	-	-	-	-	-	-	-
CONOCHILUS UNICORNIS	-	58	-	-	-	-	-	-	-	-
GASTROPUS SP	-	-	-	-	-	-	-	-	-	-
KELLICOTTIA SP	12	-	-	-	-	27	-	-	33	8
KERATELLA COCHLEARIS	24	19	31	21	17	-	-	2	16	15
MONOSTYLA SP	-	-	-	-	-	-	-	-	-	-
NOTHALCA SP	-	-	-	-	-	-	-	-	-	-
PARACOLURELLA SP	59	77	-	36	123	27	-	-	131	100
PLATYIAS SP	-	-	-	-	-	-	-	-	-	8
POLYARTHRA SP	-	77	122	7	52	-	9	-	-	8
TRICHOCERCA SP	-	39	-	-	-	-	-	-	-	15
UNIDENTIFIED ROTIFERA	-	-	-	-	-	-	-	-	-	-

TABLE I-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
PROTOZOA										
RHIZOPODA	-	-	-	-	-	-	-	-	-	-
VOLVOX SP	95	290	306	235	193	241	-	7	230	61
VORTICELLA SP	-	-	-	-	-	-	73	-	-	-
MISCELLANEA										
HYDRA	-	-	-	-	-	-	9	-	-	-
TOTAL NUMBER OF ORGANISMS	4284	6750	5471	3208	5290	4687	2919	918	4803	2677
NUMBER OF TAXA	13	18	11	12	10	10	10	10	10	15

TABLE I-1b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	544	-	5	7	2	3	-	321	241	*******
CYCLOPOIDA										
CYCLOPS BICUSPIDATUS THOMASI	-	-	-	-	-	14	-	-	-	*******
CYCLOPS SP	131	82	37	7	18	-	-	235	167	*******
MESOCYCLOPS EDAX	37	-	5	14	-	3	-	-	74	*******
TROPOCYCLOPS PRASINUS	-	181	18	-	2	-	4	-	-	*******
NAUPLII	1033	789	384	174	175	89	8	1775	1167	*******
CLADOCERA										
ALONA SP	-	-	-	-	-	3	-	-	-	*******
ALONELLA SP	19	-	-	-	-	-	-	-	-	*******
BOSMINA LONGIROSTRIS	5051	510	181	44	11	14	4	3615	2743	*******
BOSMINOPSIS DEITERSI	-	-	-	-	25	-	-	-	-	*******
CERIODAPHNIA SP	-	16	-	-	-	-	-	-	37	*******
CHYDORUS SP	-	16	5	-	-	-	-	-	-	*******
DAPHNIA PARVULA	150	-	14	-	-	3	-	556	296	*******
DAPHNIA SP	-	-	-	-	-	-	-	-	-	*******
DIAPHANOSOMA BRACHYURUM	56	16	23	7	-	-	-	64	56	*******
EUBOSMINA SP	-	-	-	-	-	-	-	-	-	*******
HOLOPEDIUM AMAZONICUM	94	-	-	-	-	-	-	278	111	*******
SIMOCEPHALUS SP	19	-	14	-	-	-	-	-	-	*******

TABLE I-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
OSTRACODA										
CYPRIS SP	-	-	-	14	-	-	-	-	-	********
ROTIFERA										
ANEUROPSIS SP	-	-	-	-	4	-	-	-	-	********
ASCOMORPHA SP	-	-	-	-	-	-	-	-	-	********
ASPLANCHNA PRIODONTA	131	16	65	14	4	17	4	577	1575	********
BRACHIONUS SP	19	-	-	-	-	-	-	43	37	********
CEPHALADELLA SP	-	-	-	-	-	-	-	-	-	********
CONOCHILUS UNICORNIS	19	-	5	-	2	-	-	-	18	********
GASTROPUS SP	-	-	5	-	-	-	-	-	-	********
KELLICOTTIA SP	-	33	-	-	-	3	-	-	-	********
KERATELLA COCHLEARIS	-	444	14	-	27	-	8	43	37	********
MONOSTYLA SP	-	-	-	7	-	7	-	-	-	********
NOTHOLCA SP	-	-	-	-	2	-	-	-	-	********
PARACOLURELLA SP	19	16	23	-	4	-	-	107	204	********
PLATYIAS SP	19	-	32	-	-	-	-	43	-	********
POLYARTHRA SP	19	-	-	-	4	-	-	-	74	********
TRICHOCERCA SP	-	16	-	-	2	3	39	21	18	********
UNIDENTIFIED ROTIFERA	-	-	-	7	-	3	-	-	-	********

TABLE I-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
PROTOZOA										
RHIZOPODA	-	16	-	-	2	3	-	-	-	*******
VOLVOX SP	-	-	-	7	-	-	-	214	93	*******
VORTICELLA SP	-	-	-	-	-	-	-	-	-	*******
MISCELLANEA										
HYDRA	-	-	-	-	-	-	-	-	-	*******
TOTAL NUMBER OF ORGANISMS	7360	2151	830	302	284	165	67	7892	6948	******
NUMBER OF TAXA	16	13	16	11	15	13	6	14	17	******

TABLE I-2a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 2

(June 5-7, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	67	77	320	11	79	56	35	26	80	167
CYCLOPOIDA										
CYCLOPOID COPEPODITES	-	-	-	-	28	4	-	15	-	-
CYCLOPS SP	18	5	18	3	34	12	21	42	71	584
EUCYCLOPS AGILIS	-	-	-	-	3	-	-	-	-	-
MESOCYCLOPS EDAX	75	86	151	41	45	39	27	15	125	250
TROPOCYCLOPS PRASINUS	-	-	-	-	-	-	-	-	-	-
HARPACTICOID										
ATTHEYELLA SP	-	-	-	-	-	-	-	-	-	-
NAUPLII	431	248	755	301	392	190	493	786	1176	3382
CLADOCERA										
BOSMINA LONGIROSTRIS	3	5	-	-	14	16	14	19	287	752
BOSMINOPSIS DEITERSI	-	-	-	-	-	4	-	-	9	42
CERIODAPHNIA SP	5	-	-	101	-	6	-	8	-	42
DAPHNIA PARVULA	36	28	178	11	34	19	6	26	62	125
DIAPHANOSOMA BRACHYURUM	5	-	18	14	14	14	4	-	330	1127
HOLOPEDIUM AMAZONICUM	106	44	249	-	101	66	70	64	151	125
LEPTODORA KINDTII	-	-	-	-	3	-	-	-	-	-
PLEUROXUS SP	-	-	-	-	-	-	-	-	-	-

TABLE I-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
OSTRACODA										
CYPRIS SP	-	-	-	-	-	2	-	-	-	-
ROTIFERA										
ASPLANCHNA PRIODONTA	26	14	-	-	22	23	2	34	71	2630
BRACHIONUS ANGULARIS	-	-	-	-	-	-	-	23	80	1837
BRACHIONUS HAVANAENSIS	3	-	-	-	8	-	2	8	9	-
BRACHIONUS SP	-	-	-	-	3	-	-	-	-	-
CONOCHILUS UNICORNIS	-	2	-	-	17	8	-	-	-	-
FILINIA LONGISETA	-	-	-	-	3	-	4	-	-	-
GASTROPUS SP	-	-	-	-	-	-	-	4	160	6889
KELLICOTTIA SP	3	7	18	-	14	-	6	-	-	-
KERATELLA AMERICANA	-	-	-	-	3	-	-	-	-	-
KERATELLA COCHLEARIS	10	7	-	-	17	-	-	-	-	-
KERATELLA SP	-	-	-	-	-	6	10	38	-	-
LECANE SP	-	-	-	-	-	2	-	-	-	-
MONOSTYLA SP	-	-	-	-	3	-	-	-	-	-
PLATYIAS PATULUS	-	-	-	-	-	4	-	11	-	-
PLEOSOMA HUDSONI	-	-	-	-	-	2	-	-	-	-
POLYARTHRA VULGARIS	-	-	-	-	-	-	-	8	-	83
POLYARTHRA SP	-	2	-	-	-	-	-	-	-	-
TRICHOCERCA LONGISETA	3	-	-	-	-	2	-	8	-	42
UNIDENTIFIED ROTIFERA	-	-	-	-	-	-	-	-	-	-

TABLE I-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
PROTOZOA										
RHIZOPODA	-	-	-	-	-	-	2	-	-	-
VOLVOX SP	-	-	-	-	-	-	6	-	-	-
MISCELLANEA										
CHAOBORUS SP	-	2	27	-	3	6	-	-	-	-
HYDRACARINA	-	-	-	-	-	-	-	-	-	-
OTHER DIPTERA	-	-	-	-	-	-	-	-	-	-
UNIONID GLOCHIDIA	-	-	9	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	791	527	1743	482	840	481	702	1135	2591	10077
NUMBER OF TAXA	14	13	10	7	21	20	15	17	13	18

TABLE I-2b

[illegible] WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100 L)
[illegible] (CONTRACT DACW[illegible]1-78-C-0101) PHASE I, CYCLE 2
(June 5-7, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L) 11	12	13	14	15	16	17	18	19	******
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	54	-	93	4	-	4	P	-	20	********
CYCLOPOIDA										
CYCLOPOIDS COPEPODITES	-	76	13	8	-	-	-	46	40	********
CYCLOPS SP	236	17	13	-	9	P	-	174	140	********
EUCYCLOPS AGILIS	-	-	-	-	-	4	-	-	-	********
MESOCYCLOPS EDAX	345	-	120	4	9	-	-	156	259	********
TROPOCYCLOPS PRASINUS	-	8	-	-	-	-	-	-	-	********
HARPACTICOID										
ATTHEYELLA SP	-	-	-	-	-	P	-	-	-	********
NAUPLII	4178	1941	2015	474	113	70	13	1192	2416	********
CLADOCERA										
BOSMINA LONGIROSTRIS	891	25	1041	25	17	-	-	550	240	********
BOSMINOPSIS DEITERSI	136	-	3096	759	253	2	-	1118	799	********
CERIODAPHNIA SP	45	-	934	12	-	-	-	202	20	********
DAPHNIA PARVULA	136	-	-	-	-	P	-	18	259	********
DIAPHANOSOMA BRACHYURUM	454	-	2735	78	35	13	-	1806	2216	********
HOLOPEDIUM AMAZONICUM	236	8	-	-	-	P	P	37	60	********
LEPTODORA KINDTII	-	-	-	-	-	-	-	-	-	********
PLEUROXUS SP	-	-	-	-	-	P	-	-	-	********

TABLE I-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)								
	11	12	13	14	15	16	17	18	19
OSTRACODA									
CYPRIS SP	-	-	-	-	-	-	-	-	-
ROTIFERA									
ASPLANCHNA PRIODONTA	92	50	307	8	323	12	-	37	20
BRACHIONUS ANGULARIS	291	-	1398	8	1831	-	-	-	20
BRACHIONUS HAVANAENSIS	-	-	-	-	-	1	-	-	20
BRACHIONUS SP	-	-	253	-	52	-	-	-	-
CONOCHILUS UNICORNIS	19	53	-	-	70	-	-	9	-
FILINIA LONGISETA	-	-	-	-	-	-	-	-	-
GASTROPUS SP	192	-	4977	-	558	-	-	-	-
KELLICOTTIA SP	-	-	-	-	-	-	-	-	-
KERATELLA AMERICANA	-	-	-	-	-	-	-	-	-
KERATELLA COCHLEARIS	-	50	-	-	-	-	-	-	-
KERATELLA SP	45	-	-	-	-	-	-	-	40
LECANE SP	-	-	13	8	-	-	-	27	-
MONOSTYLA SP	-	-	-	-	-	-	-	-	-
PLATYIAS PATULUS	-	8	40	70	26	4	-	-	-
PLOESOMA HUDSONI	-	-	-	-	-	-	-	-	-
POLYARTHRA VULGARIS	-	-	-	-	-	-	-	-	-
POLYARTHRA SP	-	-	27	37	9	-	-	37	20
TRICHOCERCA LONGISETA	27	-	13	4	-	-	-	9	-
UNIDENTIFIED ROTIFERA	-	8	-	-	-	-	-	-	-

TABLE I-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
PROTOZOA										
RHIZOPODA	-	-	-	12	-	-	-	-	-	*******
VOLVOX SP	-	-	-	25	-	-	-	-	-	*******
MISCELLANEA										
CHAOBORUS SP	-	-	-	4	-	-	-	-	-	*******
HYDRACARINA	-	-	-	4	-	-	-	-	-	*******
OTHER DIPTERA	-	-	-	12	-	-	-	-	-	*******
UNIONID GLOCHIDIA	-	-	-	-	-	-	-	-	-	*******
TOTAL NUMBER OF ORGANISMS	7746	2241	17078	1556	3305	110	13	5418	6589	******
- NUMBER OF TAXA	16	11	17	19	13	13	3	15	16	******

TABLE I-3a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-79-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	-	26	-	15	5	[illegible]	10	37	10	-
CYCLOPOIDA										
CYCLOPS BICUSPIDATUS THOMASI	274	393	323	-	72	312	-	-	-	-
CYCLOPS SP	-	-	-	503	-	-	314	[illegible]	313	93
MESOCYCLOPS EDAX	33	71	30	45	61	47	71	149	166	-
TROPOCYCLOPS PRASINUS	-	9	-	-	-	-	-	-	-	-
NAUPLII	532	800	454	1199	237	450	1125	1334	1357	1481
CLADOCERA										
ALONA SP	-	-	-	-	-	-	-	-	-	-
BOSMINA LONGIROSTRIS	1007	1391	329	1192	197	[illegible]	1205	2037	793	596
BOSMINOPSIS DIETERSI	-	9	8	30	22	[illegible]	1	[illegible]	157	102
CERIODAPHNIA SP	932	1226	574	1319	793	[illegible]	1667	[illegible]	131	195
DAPHNIA PARVULA	-	183	24	15	22	-	13	-	-	-
DAPHNIA SP	8	-	-	-	-	6	-	-	-	31
DIAPHANOSOMA BRACHYURUM	890	1376	165	1259	1278	409	1545	2302	379	123
MOINA MACROCOPA	67	-	-	15	-	-	-	-	-	-
SIMOCEPHALUS SP	-	-	-	-	-	-	-	-	-	-

TABLE I-3a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
OSTRACODA										
UNIDENTIFIED OSTRACODA	-	-	-	-	-	-	-	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-
ROTIFERA										
ASPLANCHNA PRIODONTA	33	-	6	-	5	6	10	37	29	463
BRACHIONUS ANGULARIS	-	-	-	-	-	-	-	111	20	1975
BRACHIONUS BIDENTATA	-	-	-	-	-	-	-	-	-	-
BRACHIONUS CALYCIFLORUS	-	-	-	-	-	-	-	17	20	52
BRACHIONUS HAVANAENSIS	-	-	-	-	-	-	-	-	-	322
BRACHIONUS SP	-	-	6	-	-	-	-	-	-	-
CONOCHILUS UNICORNIS	67	354	42	-	72	41	1052	2000	3906	1636
FILINIA LONGISETA	-	-	-	-	-	-	-	-	-	-
GASTROPUS SP	-	-	12	-	-	-	-	180	20	1235
HARRINGIA SP	-	-	-	-	-	-	-	-	10	-
KELLICOTTIA SP	-	-	12	-	-	-	-	-	-	-
KERATELLA AMERICANA	-	35	-	15	5	10	-	-	-	155
KERATELLA COCHLEARIS	8	70	6	-	-	12	10	-	196	237
LECANE SP	-	-	-	-	-	-	-	-	13	31
PLATYIAS PATULUS	-	-	-	-	-	-	-	-	-	-
PLOESOMA HUDSONI	-	-	6	-	5	-	-	-	-	31
POLYARTHRA VULGARIS	-	52	-	-	-	-	-	-	29	370
SYNCHAETA SP	-	-	-	-	-	-	-	-	-	278
TRICHOCERCA LONGISETA	491	522	478	240	-	471	959	4684	1076	339
UNIDENTIFIED ROTIFERA	-	-	-	-	-	-	-	-	-	-

TABLE I-3a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
MISCELLANEA										
CHAOBORUS SP	-	-	-	-	5	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED INSECTA	-	-	-	-	-	-	-	-	-	-
UNIONID GLOCHIDIA	8	-	6	-	11	-	21	-	-	-
TOTAL NUMBER OF ORGANISMS	4350	6166	2679	5651	2990	[illegible]	8061	[illegible]	9170	9969
NUMBER OF TAXA	13	15	17	12	15	19	14	14	18	20

TABLE I-3b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	-	67	-	-	-	-	-	19	-	*******
CYCLOPOIDA										
CYCLOPS BICUSPIDATUS THOMASI	-	-	-	-	-	-	-	-	-	*******
CYCLOPS SP	210	50	-	54	130	5	7	173	55	*******
MESOCYCLOPS EDAX	62	-	-	3	-	-	-	[illegible]	5	*******
TROPOCYCLOPS PRASINUS	-	-	-	-	-	-	-	-	-	*******
NAUPLII	495	1198	29	241	260	2	5	750	203	*******
CLADOCERA										
ALONA SP	-	8	-	-	-	-	-	-	-	*******
BOSMINA LONGIROSTRIS	743	67	-	12	-	-	-	1356	101	*******
BOSMINOPSIS DEITERSI	62	33	631	3	751	-	-	260	92	*******
CERIODAPHNIA SP	294	-	14	30	-	-	-	115	83	*******
DAPHNIA PARVULA	15	-	-	-	-	-	-	-	-	*******
DAPHNIA SP	-	-	-	-	-	-	-	-	-	*******
DIAPHANOSOMA BRACHYURUM	867	-	14	12	-	2	-	1494	157	*******
MOINA MACROCOPA	15	-	-	-	-	-	-	17	51	*******
SIMOCEPHALUS SP	-	-	-	3	-	-	-	-	-	*******

TABLE I-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
OSTRACODA										
UNIDENTIFIED OSTRACODA	-	-	-	9	-	-	-	-	-	********
UNIDENTIFIED OSTRACOD	-	-	-	-	-	1	-	-	-	********
ROTIFERA										
ASPLANCHNA PRIODONTA	124	-	57	-	-	-	-	77	7	********
BRACHIONUS ANGULARIS	1548	-	5079	3	1272	-	-	1461	553	********
BRACHIONUS BIDENTATA	-	-	-	-	14	-	-	-	-	********
BRACHIONUS CALYCIFLORUS	-	-	29	-	-	-	-	49	5	********
BRACHIONUS HAVANAENSIS	-	-	-	-	-	-	-	290	18	********
BRACHIONUS SP	-	-	43	6	14	-	-	-	-	********
CONOCHILUS UNICORNIS	6378	1664	660	-	636	-	-	1846	304	********
FILINIA LONGISETA	-	-	-	3	-	-	-	-	-	********
GASTROPUS SP	511	100	603	18	1142	-	-	473	134	********
HARRINGIA SP	-	-	-	-	-	-	-	-	-	********
KELLICOTTIA SP	-	-	-	-	-	-	-	-	-	********
KERATELLA AMERICANA	15	-	-	-	-	-	-	-	-	********
KERATELLA COCHLEARIS	867	-	576	9	173	-	-	308	97	********
LECANE SP	-	-	-	9	-	1	-	-	-	********
PLATYIAS PATULUS	-	116	14	135	188	2	-	-	5	********
PLOESOMA HUDSONI	196	-	-	-	-	-	-	288	18	********
POLYARTHRA VULGARIS	248	33	43	-	14	-	-	53	51	********
SYNCHAETA SP	186	-	-	-	665	-	-	-	-	********
TRICHOCERCA LONGISETA	1022	42	14	24	43	-	-	346	92	********
UNIDENTIFIED ROTIFERA	-	-	-	-	72	-	-	-	-	********

TABLE I-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L) 11	12	13	14	15	16	17	18	19	******
MISCELLANEA										
CHAOBORUS SP.	-	-	-	13	-	-	-	-	-	*******
NEMATODA	-	-	-	3	-	1	-	-	-	*******
UNIDENTIFIED INSECTA	-	-	-	-	-	-	15	-	-	*******
[illegible] CYCLOPOIDA	-	-	-	-	-	1	[illegible]	[illegible]	[illegible]	*******
TOTAL NUMBER OF ORGANISMS	[illegible]	[illegible]	[illegible]	[illegible]	174	[illegible]	[illegible]	[illegible]	[illegible]	******
NUMBER OF TAXA	[illegible]	11	14	[illegible]	14	[illegible]	[illegible]	[illegible]	[illegible]	******

TABLE I-4a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

(August 14-17, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	-	17	9	7	15	21	18	-	76	-
CYCLOPOIDA										
CYCLOPOID COPEPODITES	-	-	-	-	-	8	-	-	-	-
CYCLOPS SP	524	128	178	146	267	42	-	4	92	-
MESOCYCLOPS EDAX	373	77	205	174	397	83	44	24	107	-
TROPOCYCLOPS PRASINUS	-	-	18	-	-	4	-	-	-	-
NAUPLII	1546	462	658	459	703	262	160	75	443	158
CLADOCERA										
BOSMINA LONGIROSTRIS	28	-	44	70	15	46	133	103	260	-
BOSMINOPSIS DEITERSI	1311	513	480	271	581	83	559	1006	1238	45
CERIODAPHNIA SP	41	-	18	-	8	4	-	-	-	-
DAPHNIA PARVULA	-	-	9	28	-	-	-	-	-	-
DIAPHANOSOMA BRACHYURUM	359	68	18	146	115	67	275	16	137	15
HOLOPEDIUM AMAZONICUM	-	-	-	-	-	-	-	-	-	-
LEYDIGIA ACANTHOCERCOIDES	-	-	-	-	-	-	-	-	-	-
MOINA MACROCOPA	414	60	196	21	191	146	195	123	489	-
PLEUROXUS SP	-	-	-	-	-	-	-	-	-	-

TABLE I-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
OSTRACODA										
UNIDENTIFIED OSTRACODA	-	-	-	-	-	-	-	-	-	-
ROTIFERA										
ASPLANCHNA PRIODONTA	124	60	80	63	92	25	151	47	206	706
BRACHIONUS ANGULARIS	83	77	-	-	-	-	151	47	794	631
BRACHIONUS BIDENTATA	-	-	-	-	-	-	-	4	-	-
BRACHIONUS CALYCIFLORUS	-	-	-	-	-	-	-	-	23	-
BRACHIONUS HAVANAENSIS	14	68	62	7	23	21	302	24	917	1781
BRACHIONUS SP	-	-	-	-	-	33	27	-	-	-
CONOCHILUS UNICORNIS	41	-	-	7	-	-	53	79	-	398
FILINIA LONGISETA	-	-	-	-	-	-	-	-	-	15
GASTROPUS SP	718	248	587	271	901	467	1430	483	2124	1487
KERATELLA COCHLEARIS	524	436	471	195	412	162	204	107	412	886
KERATELLA SP	-	-	-	-	-	-	-	-	8	38
LECANE SP	-	-	-	-	-	-	-	-	298	15
PLATYIAS PATULUS	-	-	-	-	-	-	-	-	-	-
PLATYIAS QUADICORNIS	-	-	-	-	-	-	-	-	-	-
PLEOSOMA HUDSONI	-	26	18	-	8	-	9	131	603	7
POLYARTHRA VULGARIS	28	60	80	-	69	-	-	16	122	300
POLYARTHRA SP	-	-	-	83	-	-	27	-	-	-
SYNCHAETA SP	-	-	-	-	-	-	27	-	-	-
TRICHOCERCA LONGISETA	662	171	222	209	221	121	98	24	1100	7
TRICHOCERCA SP	-	-	-	-	-	-	-	-	-	-

TABLE I-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
PROTOZOA										
ACTINOPODA	-	-	-	-	-	-	-	-	-	-
MISCELLANEA										
CHAOBORUS SP	-	-	9	7	8	-	-	-	-	-
OTHER DIPTERA	-	-	-	-	-	-	-	-	-	-
UNIONID GLOCHIDIA	28	-	-	14	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	5819	2471	3362	2178	4026	1595	3863	2313	9449	6159
NUMBER OF TAXA	17	15	19	18	17	17	18	17	19	15

TABLE I-4b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4
(August 14-17, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	94	31	37	-	-	2	-	44	38	********
CYCLOPOIDA										
CYCLOPOID COPEPODITES	-	72	-	-	2	-	-	-	-	********
CYCLOPS SP	234	17	110	51	-	28	4	104	91	********
MESOCYCLOPS EDAX	340	34	18	2	-	2	-	37	35	********
TROPOCYCLOPS PRASINUS	-	51	-	-	-	-	-	7	-	********
NAUPLII	1874	656	971	139	3	80	13	592	231	********
CLADOCERA										
BOSMINA LONGIROSTRIS	585	51	18	-	-	2	-	104	49	********
BOSMINOPSIS DEITERSI	1077	-	1539	-	25	14	2	326	105	********
CERIODAPHNIA SP	47	-	92	2	-	2	-	7	21	********
DAPHNIA PARVULA	-	-	-	-	-	-	-	-	-	********
DIAPHANOSOMA BRACHYURUM	1159	109	220	5	2	9	-	363	175	********
HOLOPEDIUM AMAZONICUM	-	-	-	-	-	-	-	7	7	********
LEYDIGIA ACANTHOCERCOIDES	-	-	-	-	-	-	2	-	-	********
MOINA MACROCOPA	691	3	531	-	3	2	-	118	98	********
PLEUROXUS SP	-	-	-	2	-	-	-	-	-	********

TABLE I-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
OSTRACODA										
UNIDENTIFIED OSTRACODA	-	-	18	-	-	-	2	-	-	********
ROTIFERA										
ASPLANCHNA PRIODONTA	258	-	1026	-	19	5	-	200	35	********
BRACHIONUS ANGULARIS	70	-	1649	-	266	75	9	126	-	********
BRACHIONUS BIDENTATA	-	-	-	-	-	-	-	-	-	********
BRACHIONUS CALYCIFLORUS	12	-	275	2	16	-	-	7	10	********
BRACHIONUS HAVANAENSIS	199	-	-	-	120	-	-	38	59	********
BRACHIONUS SP	35	7	-	-	-	-	-	-	-	********
CONOCHILUS UNICORNIS	2436	-	5021	-	93	99	-	828	175	********
FILINIA LONGISETA	-	-	-	-	-	-	2	-	-	********
GASTROPUS SP	831	-	8429	5	351	69	4	392	140	********
KERATELLA COCHLEARIS	1007	-	-	-	70	-	-	444	245	********
KERATELLA SP	-	-	-	-	-	-	2	15	-	********
LECANE SP	-	20	403	5	23	5	-	7	-	********
PLATYIAS PATULUS	-	68	-	169	1	36	-	-	-	********
PLATYIAS QUADRICORNIS	-	-	-	2	-	-	-	-	-	********
PLEOSOMA HUDSONI	-	-	-	3	7	-	2	22	-	********
POLYARTHRA VULGARIS	-	-	403	2	32	14	7	74	14	********
POLYARTHRA SP	117	-	-	-	-	-	-	-	-	********
SYNCHAETA SP	-	-	-	-	-	-	-	-	-	********
TRICHOCERCA LONGISETA	47	-	-	-	-	-	-	46	-	********
TRICHOCERCA SP	-	-	-	-	-	-	-	7	3	********

TABLE I-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
PROTOZOA										
ACTINOPODA	-	20	-	-	-	-	-	-	-	*******
MISCELLANEA										
CHAOBORUS SP	-	-	-	51	2	-	-	-	-	*******
OTHER DIPTERA	-	-	-	13	-	-	-	-	-	*******
UNIONID GLOCHIDIA	-	-	-	-	-	-	-	96	-	*******
TOTAL NUMBER OF ORGANISMS	11113	1139	20760	453	1035	444	49	3698	1531	******
NUMBER OF TAXA	19	13	17	15	17	16	11	25	18	******

TABLE I-5a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	44	-	-	25	-	10	-	-	-	31
CYCLOPOIDA										
CYCLOPS SP	15	77	146	161	24	10	-	42	19	-
ERGASILIS SP	-	-	-	-	24	-	-	-	-	-
MESOCYCLOPS EDAX	589	580	551	371	405	220	657	239	307	-
TROPOCYCLOPS PRASINUS	-	10	-	-	24	-	-	28	-	-
NAUPLII	2098	1954	2820	2175	2098	795	329	592	461	1554
CLADOCERA										
ALONA SP	-	-	-	-	-	-	-	-	-	-
BOSMINA LONGIROSTRIS	516	184	309	432	1192	544	986	1494	1499	559
BOSMINOPSIS DEITERSI	3008	1944	3241	1742	1621	356	119	-	346	435
CERIODAPHNIA SP	279	348	259	49	620	251	612	338	48	31
CHYDORUS SP	-	-	-	-	-	-	-	-	-	-
DAPHNIA SP	15	10	-	12	24	-	52	-	-	-
DIAPHANOSOMA BRACHYURUM	1174	464	1750	1063	763	607	1255	423	1960	497
ILYOCRYPTUS SP	-	-	-	-	-	10	-	-	-	-
MOINA MACROCOPA	-	-	-	-	-	-	-	-	-	-
SIMOCEPHALUS SP	-	-	-	12	-	-	-	-	-	-

TABLE I-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L) 1	2	3	4	5	6	7	8	9	10
OSTRACODA										
UNIDENTIFIED OSTRACODA	-	-	-	12	-	-	-	-	-	-
ROTIFERA										
ANEUROPSIS SP	-	-	-	-	-	-	-	-	-	186
ASPLANCHNA PRIODONTA	44	39	16	-	95	-	-	14	230	186
BRACHIONUS CALYCIFLORUS	-	-	-	-	-	-	-	-	-	-
BRACHIONUS FORFICULA (?=ANGULARIS)	-	-	-	12	-	94	-	-	1153	2424
BRACHIONUS HAVANAENSIS	-	-	-	-	-	-	-	-	-	93
CONOCHILUS UNICORNIS	924	1044	1167	482	4244	1046	45	1747	1114	2486
EUCHLANIS SP	-	-	-	-	-	-	-	-	-	-
FILINIA LONGISETA	-	-	-	-	-	-	-	-	-	-
GASTROPUS SP	-	58	-	37	381	-	-	1395	-	-
GASTROPUS HYPTOPUS	-	-	-	-	-	-	-	-	2843	5158
HEXARTHRA SP	-	-	-	-	-	-	-	-	-	-
KERATELLA SP	-	-	-	-	24	-	-	-	-	31
LECANE SP	-	-	-	-	-	-	-	42	989	-
PLATYIAS PATULUS	411	1335	1361	296	1335	1527	2390	1409	1460	31
PLEOSOMA HUDSONI	-	-	-	-	-	-	-	-	-	-
POLYARTHRA VULGARIS	15	68	-	124	48	10	134	169	307	373
TRICHOCERCA LONGISETA	1042	716	15557	544	453	199	627	28	67	497
TRICHOCERCA SP	-	29	16	37	24	-	-	28	-	-
UNIDENTIFIED ROTIFERA	-	-	-	-	-	-	-	-	-	-

TABLE I-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
MISCELLANEA										
CHAOBORUS SP	15	-	-	-	-	52	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	-	-	-
PELEYPOD LARVAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	10389	8860	27273	7586	13399	5731	7206	7988	12803	14572
NUMBER OF TAXA	15	16	12	18	18	15	11	15	15	16

TABLE I-5b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L) 11	12	13	14	15	16	17	18	19	******
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	19	283	-	4	-	-	-	-	-	********
CYCLOPOIDA										
CYCLOPS SP	48	40	61	123	37	5	12	-	239	********
ERGASILIS SP	-	-	-	-	-	-	-	-	30	********
MESOCYCLOPS EDAX	77	142	8	4	-	3	-	319	418	********
TROPOCYCLOPS PRASINUS	-	121	-	-	-	-	-	-	-	********
NAUPLII	-	4412	92	873	55	66	120	2894	2510	********
CLADOCERA										
ALONA SP	-	20	-	-	-	-	-	-	-	********
BOSMINA LONGIROSTRIS	387	526	-	-	-	1	-	159	45	********
BOSMINOPSIS DEITERSI	348	142	8	77	37	1	6	433	792	********
CERIODAPHNIA SP	19	81	8	23	6	-	-	11	-	********
CHYDORUS SP	-	20	-	-	-	-	-	-	-	********
DAPHNIA SP	-	20	-	-	-	-	-	-	-	********
DIAPHANOSOMA BRACHYURUM	697	182	122	100	128	2	1	832	598	********
ILYOCRYPTUS SP	-	-	-	-	-	2	-	-	-	********
MOINA MACROCOPA	10	-	-	-	43	-	-	-	-	********
SIMOCEPHALUS SP	-	-	-	-	-	-	-	-	-	********

TABLE I-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
OSTRACODA										
UNIDENTIFIED OSTRACODA	-	-	-	4	-	-	-	-	-	********
ROTIFERA										
ANEUROPSIS SP	-	-	-	-	-	-	-	-	-	********
ASPLANCHNA PRIODONTA	503	20	61	-	43	1	7	319	299	********
BRACHIONUS CALYCIFLORUS	-	-	8	-	-	-	-	-	-	********
BRACHIONUS FORFICULA (?=ANGULARIS)	174	40	7823	-	8770	49	141	1108	762	********
BRACHIONUS HAVANAENSIS	-	-	8	4	-	-	-	-	-	********
CONOCHILUS UNICORNIS	707	1113	1650	150	4450	2	-	706	717	********
EUCHLANIS SP	-	-	-	9	-	-	-	-	-	********
FILINIA LONGISETA	-	-	8	-	-	-	-	-	-	********
GASTROPUS SP	4569	182	-	23	-	11	-	148	463	********
GASTROPUS HYPTOPUS	-	-	5592	-	3912	-	-	-	-	********
HEXARTHRA SP	126	-	-	-	-	-	-	-	-	********
KERATELLA SP	10	-	825	-	733	1	3	11	-	********
LECANE SP	232	182	-	4	-	1	-	-	-	********
PLATYIAS PATULUS	29	567	-	82	12	1	4	-	-	********
PLEOSOMA HUDSONI	-	-	-	-	-	-	-	171	15	********
POLYARTHRA VULGARIS	1588	61	122	95	-	1	-	298	60	********
TRICHOCERCA LONGISETA	184	61	-	-	-	-	-	114	15	********
TRICHOCERCA SP	19	20	8	-	-	19	12	-	-	********
UNIDENTIFIED ROTIFERA	-	-	-	-	-	-	1	-	-	********

TABLE I-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	12	13	14	15	16	17	18	19	******
MISCELLANEA										
CHAOBORUS SP	-	-	-	4	-	-	-	-	-	*******
NEMATODA	-	61	-	-	-	-	-	-	-	*******
PELECYPOD LARVAE	-	-	-	-	-	-	-	752	-	*******
TOTAL NUMBER OF ORGANISMS	9746	8296	16404	1579	15226	166	307	8270	6963	******
NUMBER OF TAXA	19	22	16	16	12	16	10	15	14	******

TABLE I-6a

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 6

(November 28-30, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	-	38	-	-	-	-	4	4	6	-
CYCLOPOIDA										
CYCLOPOID COPEPODITES	-	-	6	-	32	32	-	-	23	-
CYCLOPS SP	108	113	58	70	97	64	29	39	23	69
MESOCYCLOPS EDAX	72	38	39	35	11	54	58	20	23	77
TROPOCYCLOPS PRASINUS	-	-	6	-	-	11	4	-	-	-
NAUPLII	398	239	110	220	140	96	113	86	161	386
CLADOCERA										
BOSMINA LONGIROSTRIS	265	377	265	176	238	299	426	198	322	749
BOSMINOPSIS DEITERSI	36	-	-	-	-	-	-	20	6	-
CERIODAPHNIA SP	-	75	45	35	11	64	58	110	96	95
CHYDORUS SP	-	-	-	-	-	-	-	-	-	-
DAPHNIA SP	-	13	39	-	-	-	4	4	46	8
DIAPHANOSOMA BRACHYURUM	-	-	-	-	11	-	-	-	6	-
HOLOPEDIUM AMAZONICUM	48	13	13	-	-	-	4	-	17	8
MOINA SP	12	-	-	-	-	-	-	-	-	-

TABLE I-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L) 1	2	3	4	5	6	7	8	9	10
ROTIFERA										
ASCOMORPHA SP	-	-	-	2	-	-	-	-	-	-
ASPLANCHNA PRIODONTA	205	251	212	290	951	[illegible]	16	16	33	1315
BRACHIONUS ANGULARIS	-	-	-	-	-	-	-	-	-	-
BRACHIONUS CALYCIFLORUS	-	-	-	-	-	-	-	-	-	278
BRACHIONUS HAVANAENSIS	-	-	-	-	-	-	-	-	-	-
BRACHIONUS QUADRIDENTATA	-	-	-	-	-	-	-	-	[illegible]	-
BRACHIONUS SP	-	-	-	-	-	-	-	4	[illegible]	-
CEPHALODELLA SP	-	-	-	-	-	11	8	-	-	-
COLURELLA SP	-	-	-	9	-	-	-	-	-	-
CONOCHILOIDES SP	-	-	-	-	22	-	-	-	-	-
CONOCHILUS UNICORNIS	808	2551	2582	334	303	46	103	39	828	15
EPIPHANES SP	-	-	-	-	-	-	-	-	-	-
GASTROPUS SP	48	25	77	26	22	-	-	4	[illegible]	-
GASTROPUS HYPTOPUS	-	-	-	-	-	-	-	-	-	39
KELLICOTTIA SP	-	13	-	-	-	-	-	-	-	-
KERATELLA COCHLEARIS	1808	2211	1336	1933	1286	1791	647	531	2117	2448
KERATELLA SP	-	-	6	25	-	-	4	8	-	-
LECANE SP	12	-	-	-	-	-	-	-	-	-
LEPADELLA SP	-	13	-	-	-	-	-	-	-	-
MONOSTYLA SP	12	-	-	-	-	-	-	-	-	-
PLEOSOMA HUDSONI	-	25	13	-	54	129	4	12	-	-
POLYARTHRA VULGARIS	157	402	200	334	2738	2359	120	51	115	278
SYNCHAETA SP	-	-	6	9	11	-	-	-	-	-
TRICHOCERCA LONGISETA	24	13	6	53	11	-	-	-	11	-
TRICHOCERA SIMILIS	-	50	103	-	86	182	4	-	-	-
TRICHOCERCA SP	96	-	-	26	-	11	4	-	-	31
UNIDENTIFIED ROTIFERA	-	-	-	-	-	-	-	-	-	15

TABLE I-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	1	2	3	4	5	6	7	8	9	10
MISCELLANEA										
FISH EGG	-	-	-	-	-	-	-	4	-	-
TANCICHADE	-	-	6	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	20	-	-
TOTAL NUMBER OF ORGANISMS	4109	6460	5148	3594	6074	6235	1640	1153	3842	6401
NUMBER OF TAXA	16	18	20	16	17	15	18	19	19	15

TABLE I-6b

LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY - ZOOPLANKTON (ORGANISMS/100L)
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0131) PHASE I, CYCLE 6
(November 28-30, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L)									
	11	13	15	16	17	******	******	******	******	******
COPEPODA										
CALANOIDA										
DIAPTOMUS MISSISSIPPIENSIS	12	-	-	-	-	*******	*******	*******	*******	*******
CYCLOPOIDA										
CYCLOPOID COPEPODITES	-	-	-	-	-	*******	*******	*******	*******	*******
CYCLOPS SP	85	98	-	-	-	*******	*******	*******	*******	*******
MESOCYCLOPS EDAX	12	8	-	-	-	*******	*******	*******	*******	*******
TROPOCYCLOPS PRASINUS	-	-	-	-	-	*******	*******	*******	*******	*******
NAUPLII	206	279	58	4	4	*******	*******	*******	*******	*******
CLADOCERA										
BOSMINA LONGIROSTRIS	85	-	-	-	1	*******	*******	*******	*******	*******
BOSMINOPSIS DEITERSI	24	33	35	-	-	*******	*******	*******	*******	*******
CERIODAPHNIA SP	24	-	-	-	-	*******	*******	*******	*******	*******
CHYDORUS SP	-	-	-	P	-	*******	*******	*******	*******	*******
DAPHNIA SP	-	-	-	-	-	*******	*******	*******	*******	*******
DIAPHANOSOMA BRACHYURUM	-	16	15	-	-	*******	*******	*******	*******	*******
MOINODAPHNIA AMAZONICUM	-	-	-	-	-	*******	*******	*******	*******	*******
MOINA SP	-	8	-	-	-	*******	*******	*******	*******	*******

TABLE I-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/100 L) 11	13	15	16	17	******	******	******	******	******
ROTIFERA										
ASCOMORPHA SP	-	-	-	-	-	*******	*******	*******	*******	*******
ASPLANCHNA PRIODONTA	824	279	128	P	-	*******	*******	*******	*******	*******
BRACHIONUS ANGULARIS	97	25	-	-	4	*******	*******	*******	*******	*******
BRACHIONUS CALYCIFLORUS	4896	37701	4980	-	-	*******	*******	*******	*******	*******
BRACHIONUS HAVANAENSIS	12	-	-	15	-	*******	*******	*******	*******	*******
BRACHIONUS QUADRIDENTATA	-	-	-	-	-	*******	*******	*******	*******	*******
BRACHIONUS SP	-	57	81	2	-	*******	*******	*******	*******	*******
CEPHALODELLA SP	-	-	-	-	-	*******	*******	*******	*******	*******
COLURELLA SP	-	-	-	-	-	*******	*******	*******	*******	*******
CONOCHILOIDES SP	-	-	-	-	-	*******	*******	*******	*******	*******
CONOCHILUS UNICORNIS	-	296	477	P	-	*******	*******	*******	*******	*******
EPIPHANES SP	-	-	35	-	-	*******	*******	*******	*******	*******
GASTROPUS SP	24	115	35	-	-	*******	*******	*******	*******	*******
GASTROPUS HYPTOPUS	-	-	-	-	-	*******	*******	*******	*******	*******
KELLICOTTIA SP	-	-	-	-	-	*******	*******	*******	*******	*******
KERATELLA COCHLEARIS	1309	213	-	-	-	*******	*******	*******	*******	*******
KERATELLA SP	-	-	326	2	-	*******	*******	*******	*******	*******
LECANE SP	-	-	-	-	-	*******	*******	*******	*******	*******
LEPADELLA SP	-	-	-	-	-	*******	*******	*******	*******	*******
MONOSTYLA SP	-	-	-	-	-	*******	*******	*******	*******	*******
PLOESOMA HUDSONI	24	-	-	-	-	*******	*******	*******	*******	*******
POLYARTHRA VULGARIS	12	-	-	-	4	*******	*******	*******	*******	*******
SYNCHAETA SP	-	-	-	-	-	*******	*******	*******	*******	*******
TRICHOCERCA LONGISETA	-	-	-	-	-	*******	*******	*******	*******	*******
TRICHOCERCA SIMILIS	-	-	-	-	1	*******	*******	*******	*******	*******
TRICHOCERCA SP	36	-	-	-	-	*******	*******	*******	*******	*******
UNIDENTIFIED ROTIFERA	-	-	-	-	-	*******	*******	*******	*******	*******

TABLE I-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/100 L)									
	11	13	15	16	17	******	******	******	******	******
MISCELLANEA										
FISH EGG	-	-	-	-	-	******	******	******	******	******
TARDIGRADE	-	-	-	-	-	******	******	******	******	******
	-	-	-	-	-	******	******	******	******	******
TOTAL NUMBER OF ORGANISMS	7682	33128	6190	26	14	******	******	******	******	******
NUMBER OF TAXA	16	11	10	7	5	******	******	******	******	******

APPENDIX J

MACROINVERTEBRATES

LIST OF TABLES

TABLE J-1a

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1	2	3	4	5	6	7	8	9	10
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	12	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	235
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	12	-	68	19
COELOTANYPUS SCAPULARIS	-	-	-	-	-	-	-	-	81	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	-	-	12	-	-	25
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
ENDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	6	-	-	-	-
HARNISCHIA SP	-	-	-	-	-	-	12	-	-	6
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	9	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	28	9	-	-	-	-	-	19	6	-
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	-	-	-	-	-
PROCLADIUS SP	-	-	-	-	-	-	31	-	-	-
PSECTROCLADIUS SP A	-	9	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP B	-	23	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	19	131	19	19	37	12	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
TRIBELOS JUCUNDUS	-	-	-	-	-	-	-	-	-	-
TRIBELOS SP	-	-	-	-	-	-	-	-	-	-
(TRISSOPELOPIA) SP	-	-	-	-	-	-	-	-	-	-

TABLE J-1a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/250 M) 1	2	3	4	5	6	7	8	9	10
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERACLEA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	6	-
CHAOBORUS SP	-	-	-	-	-	-	12	-	19	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	392	2290	757	1670	1109	1227	93	133	174	230
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
GOMPHOIDES SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	6	-
HEXAGENIA SP	-	-	-	-	-	-	44	-	467	119
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	-	19	-	156	-	-	93	56	262	100
NAREUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	31	-	19	75
OLIGOCHAETA FAMILY A	-	177	-	12	25	25	-	-	-	-
PARAGYRACTIS SP	-	-	-	-	-	-	-	-	-	-
PERITHEMIS SP	-	-	-	-	-	-	-	-	-	-
POTAMYIA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	-	-	6	-	31	19	236
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	252	2635	206	623	760	885	6	-	-	-
UNIDENTIFIED TRICOPTERA	-	-	-	-	-	-	-	-	-	19
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	700	5298	982	2490	1931	2161	346	236	1132	1906
NUMBER OF TAXA	5	8	3	5	4	6	10	4	12	13

TABLE J-1b

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	11	12	13	14	15	16	17	18	19	******
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	25	12	-	-	-	********
ABLABESMYIA MALLOCHI	-	-	-	-	-	44	-	-	-	********
ABLABESMYIA PARAJANTA	-	-	-	-	-	6	-	-	-	********
CHIRONOMUS SP	6	43	87	56	12	206	-	-	6	********
CLADOTANYTARSUS SP	-	-	-	-	-	25	-	-	12	********
COELOTANYPUS CONCINNUS	280	75	56	131	149	19	-	-	-	********
COELOTANYPUS SCAPULARIS	-	-	-	-	-	-	-	-	-	********
COELOTANYPUS TRICOLOR	-	6	-	25	12	-	-	-	-	********
CORYNONEURA SP	-	-	-	-	-	31	-	-	-	********
NEAR CORYNONEURA SP	-	-	-	-	-	25	-	-	-	********
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	6	-	-	-	********
CRYPTOCHIRONOMUS FULVUS	-	37	100	-	-	125	-	-	-	********
DICROTENDIPES LOBUS	-	43	-	-	-	-	-	-	-	********
DICROTENDIPES MODESTUS	-	6	-	-	-	-	-	-	-	********
EINFELDIA SP	-	-	-	25	-	-	-	-	-	********
ENDOCHIRONOMUS SP	-	-	-	-	-	81	-	-	-	********
EPOICOCLADIUS SP	-	-	6	-	-	-	-	-	-	********
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	********
HARNISCHIA SP	-	-	12	-	6	12	-	-	-	********
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	25	-	-	-	********
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	12	********
POLYPEDILUM HALTERALE	-	280	6	-	-	106	-	-	19	********
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	6	-	-	-	-	********
PROCLADIUS SP	25	118	218	-	12	44	-	-	-	********
PSECTROCLADIUS SP A	-	-	-	-	-	-	-	-	-	********
PSECTROCLADIUS SP B	-	-	-	-	-	-	-	-	-	********
RHEOTANYTARSUS SP	-	6	-	-	-	6	-	-	-	********
ROBACKIA SP	-	-	-	-	-	-	9	-	-	********
TANYTARSUS SP	-	735	-	-	-	12	-	-	-	********
TRIBELOS JUCUNDUS	-	-	-	-	-	12	-	-	-	********
TRIBELOS SP	-	-	-	-	-	-	-	-	6	********
(TRISSOPELOPIA) SP	-	-	-	-	-	6	-	-	-	********

TABLE J-1b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/SQ M)									
	11	12	13	14	15	16	17	18	19	******
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	6	-	31	-	-	-	-	6	********
CAMPELOMA SP	-	-	-	-	-	-	-	-	31	********
CERACLEA SP	-	-	-	-	-	-	-	6	-	********
CERATOPOGONIDAE (N) LARVAL KEY)	-	6	12	-	-	-	-	-	-	********
CHAOBORUS SP	56	93	75	19	37	12	-	-	-	********
POTAMYIA FLAVA	-	-	-	-	-	-	-	19	-	********
CORBICULA MANILENSIS	361	1975	349	12	149	2558	149	1279	262	********
CYRNELLUS SP	-	-	-	-	-	6	-	-	-	********
EUPERA SP	6	-	-	-	-	-	-	-	-	********
GOMPHOIDES SP	-	-	-	-	-	6	-	-	-	********
GOMPHUS SP	-	-	-	-	-	-	-	-	-	********
HEXAGENIA SP	162	6	25	181	311	62	-	-	-	********
HIRUDINEA	-	6	12	-	-	-	-	-	-	********
HYALELLA AZTECA	-	81	-	6	-	-	-	-	-	********
NAIDIDAE	25	386	-	-	-	536	336	6	62	********
NAREUS SP	-	-	-	-	6	12	-	-	-	********
NEMATODA	19	12	6	-	6	6	-	-	-	********
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	********
PARARGYRACTIS SP	-	6	-	-	-	-	-	-	-	********
PERITHEMIS SP	-	6	-	-	-	-	-	-	-	********
POTAMYIA SP	6	-	-	-	-	-	-	-	-	********
TUBIFICIDAE	6	193	467	12	169	635	-	12	193	********
TURBELLARIA	-	75	-	-	-	-	-	-	-	********
TURBELLARIA B	-	-	-	-	-	-	-	-	-	********
UNIDENTIFIED TRICOPTERA	-	-	6	6	-	-	-	-	-	********
UNIONIDAE	-	6	-	-	-	-	-	-	-	********
TOTAL NUMBER OF ORGANISMS	952	4114	1437	504	899	4632	485	1321	516	******
NUMBER OF TAXA	11	24	15	11	13	29	3	5	10	******

TABLE J-2a

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1	2	3	4	5	6	7	8	9	10
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	44	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	6	-	62	56
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	6	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	6	-	-	-	-	-	-	-
NEAR CORYNONEURA SP B	-	-	6	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	12	-	31	17	19	12
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	6	-	-	12
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP	-	-	-	-	-	12	12	-	-	-
PARACLADOPELMA SP A	-	-	-	-	-	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
PARATENDIPES "CONNECTENS" (A)	-	-	-	-	-	-	-	-	-	-
PHAENOPSECTRA SP	-	-	12	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	-	13	12	12	75	-	3
PROCLADIUS SP	-	-	-	-	-	-	17	-	44	6
PSECTROCLADIUS SP	-	-	-	-	19	-	-	-	-	-
PSEUDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	31	25	37	262	6	-	-	-	-
STEMPELLINA SP	-	-	-	-	-	-	-	-	-	-

TABLE J-2a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/SQ M) 1	2	3	4	5	6	7	8	9	10
CHIRONOMIDAE										
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
XENOCHIRONOMUS SP	-	-	-	-	-	-	-	203	-	-
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	12	6	-	-	12	280	12	19	56
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	953	748	1034	1184	1919	444	417	1317	37	542
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	6
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	6	6	-	-
HEXAGENIA SP	-	-	-	-	-	6	69	6	143	62
HIRUDINEA	-	-	-	-	-	-	-	-	[illegible]	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LEPTOCERIDAE	-	-	-	-	-	-	12	-	12	25
NAIDIDAE	-	-	31	56	554	19	-	2	-	-
NAFFUS SP	-	-	6	-	-	-	-	-	-	-
NEMATODA	-	-	-	6	-	-	6	-	12	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PHYLOCENTROPUS SP	-	-	-	-	-	-	-	-	-	-
STENONEMA SP	-	6	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	-	-	360	760	1346	4293	2455
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	125	137	343	19	19	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	978	933	1469	1302	2706	939	1653	2834	4457	3279
NUMBER OF TAXA	2	5	9	5	7	9	13	10	11	11

TABLE J-2b

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)								
	11	12	13	14	15	16	17	18	19
CHIRONOMIDAE									
ABLABESMYIA CINCTIPES	-	-	-	44	6	12	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	6	-	-	-	-	9
ABLABESMYIA PARAJANTA	-	-	-	-	-	6	-	12	29
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	6	-	-	-
CHIRONOMUS SP	-	-	19	19	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	19	607	6	-
COELOTANYPUS CONCINNUS	62	12	56	330	44	12	-	-	-
COELOTANYPUS TRICOLOR	12	-	19	19	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	25	-	9
NEAR CORYNONEURA SP	-	-	-	-	-	6	9	-	-
NEAR CORYNONEURA SP B	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	47	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	6	19	12	12	187	25	9
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	9
DICROTENDIPES MODESTUS	-	-	-	12	-	31	-	-	-
EINFELDIA SP	-	-	-	6	-	-	-	-	-
EPOICOCLADIUS SP	-	-	6	-	12	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	12	-	-	-	19	-
MICROCHIRONOMUS SP	-	-	-	25	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	6	-	-	-	-	-	-	-
PARACLADOPELMA SP	-	-	-	6	-	-	-	-	-
PARACLADOPELMA SP A	-	-	-	12	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	6	205	-	-
PARATENDIPES "CONNECTENS" (A)	-	-	-	31	-	-	-	-	-
PHAENOPSECTRA SP	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	3000	3073
POLYPEDILUM HALTERALE	-	31	-	19	6	56	65	-	287
PROCLADIUS SP	6	6	50	100	37	6	-	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	44	-
PSEUDOCHIRONOMUS SP	-	6	-	6	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	75	46
ROBACKIA SP	-	-	-	-	-	6	19	5	66
STEMPELLINA SP	-	-	-	-	-	-	9	-	-

TABLE J-2b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	11	12	13	14	15	16	17	18	19	******
CHIRONOMIDAE										
TANYPUS STELLATUS	6	-	-	-	-	-	-	-	-	********
TANYTARSUS SP	-	-	-	50	-	-	-	-	-	********
XENOCHIRONOMUS SP	-	-	-	-	-	56	-	6	-	********
UNDESCRIBED CHIRONOMINI A	-	-	-	19	-	-	-	-	-	********
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	6	-	-	9	********
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	9	374	368	********
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	6	37	-	-	********
CHAOBORUS SP	380	-	2374	31	1171	716	19	6	18	********
POTAMYIA FLAVA	-	-	-	12	-	-	-	9967	7260	********
CORBICULA MANILENSIS	-	143	-	162	187	2397	2308	1097	4933	********
CYRNELLUS SP	-	-	-	-	-	-	-	143	133	********
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	6	-	********
GOMPHUS SP	-	-	6	-	-	-	-	-	-	********
HEXAGENIA SP	12	-	243	504	374	37	-	-	-	********
HIRUDINEA	6	-	-	-	-	6	-	6	29	********
HYALELLA AZTECA	-	50	-	12	-	2611	-	-	-	********
LEPTOCERIDAE	-	-	-	6	6	-	-	-	-	********
NAIDIDAE	-	-	-	-	-	-	-	492	101	********
NARPUS SP	-	-	-	-	-	6	-	-	-	********
NEMATODA	6	6	19	6	-	6	9	-	-	********
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	28	-	-	********
PHYLOCENTROPUS SP	-	-	-	6	-	-	-	-	-	********
STENONEMA SP	-	-	-	-	-	-	-	-	37	********
TUBIFICIDAE	935	268	1128	149	305	343	299	473	479	********
TURBELLARIA	-	-	-	-	-	100	-	1171	83	********
TURBELLARIA B	-	-	-	-	-	212	-	262	-	********
TOTAL NUMBER OF ORGANISMS	1425	534	3926	1723	2160	6697	3477	17132	15864	******
NUMBER OF TAXA	9	9	11	27	11	25	16	20	20	******

TABLE J-3a

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1	2	3	4	5	6	7	8	9	10
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	19	93	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJAUNTA	-	-	-	-	-	-	-	-	-	-
CHERNOVSKIIA ORBICUS	28	9	-	50	12	31	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	19	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	50	6	523	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CRICOTOPUS SP	-	-	-	-	-	-	-	5	-	-
CRYPTOCHIRONOMUS CF. HOLLI	-	-	-	-	-	12	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	25	12	6	62	44	19	6	12
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NEOMODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA NATCHITOCHEA	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	84	-	6	-	-	-	-	-	-	-
LABRUNDINIA VIRESCENS	-	-	-	-	-	-	-	-	-	-
LARSIA SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	12	-
MICROPSECTRA SP	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	-	-	-
PARATENDIPES [illegible] (S)	-	-	-	-	-	-	-	-	-	-
PARATENDIPES SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM FALLAX	6	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	62	6	6	31	25	12	6	56
PROCLADIUS SP	-	-	-	-	-	6	6	5	143	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	37	28	12	100	62	6	-	-	-	-
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	12	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-

TABLE J-3a (cont.)

[illegible]	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/250 M)									
	1	2	3	4	5	6	7	8	9	10
[illegible] SP	-	-	-	-	-	-	704	37	-	-
[illegible] CHIRONOMIDAE A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	6	-	-	-	-
CAENIS SP	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	12	-	-	12	56	19	119	68
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	1187	477	2723	3134	5458	3393	1309	1372	149	810
CYRNELLUS SP	-	-	-	-	-	-	-	6	-	-
DINEUTUS SP	-	-	-	-	-	-	-	-	-	-
DUBIRAPHIA SP	-	[illegible]	-	-	-	-	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
FOSSARIA SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	5	-
HELISOMA SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	6	44	125	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LUMBRICULIDAE	-	-	-	-	-	-	-	-	19	-
NAIDIDAE	29	-	12	12	467	660	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	5	6	19
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PALAEMONETES PALUDOSUS	-	-	-	-	-	-	-	-	-	-
PHYSA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	25	-	-	1029	4904	2361	2375	192
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	56	173	56	143	361	131	-	-	-	-
UNIDENTIFIED LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	6
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	-	-	-	-	-	-	-
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	1429	701	2940	3457	6372	5625	7022	3663	3293	1170
NUMBER OF TAXA	7	5	9	7	7	12	10	13	14	7

TABLE J-3b

LAKE SEMINOLE AQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)								
	11	12	13	14	15	16	17	18	19
CHIRONOMIDAE									
ABLABESMYIA CINCTIPES	6	-	6	125	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	6	-	6	-
ABLABESMYIA PARAJANTA	-	37	-	6	-	37	9	31	12
[illegible] CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	31	-	-	12	-	-	-	-	-
CLADOTANYTARSUS SP	-	12	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	31	-	149	369	50	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	6	-
CRICOTOPUS SP	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS CF. FULVI	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	6	112	12	6	-	25	75	3	-
DICROTENDIPES LOBUS	-	44	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	25	-	6	-
DICROTENDIPES NEOMODESTUS	-	-	-	6	-	-	-	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	6	-	-	-
EINFELDIA NATCHITOCHEA	-	-	-	19	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	6	-	-	-	-	-
GLYPTOTENDIPES SP	6	-	-	-	-	-	-	75	-
LABRUNDINIA VIRESCENS	-	6	-	-	-	-	-	-	-
LARSIA SP	-	6	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	6	-	-	-	-	-
MICROPSECTRA SP	-	12	-	-	-	-	-	6	-
PARACHIRONOMUS HIRTALATUS	-	31	-	19	-	-	-	-	-
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	6	-
PARATENDIPES [illegible] (A)	-	-	-	12	-	-	-	-	-
PARATENDIPES SP	-	-	-	-	-	-	9	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	6	-	-	-	4429	779
POLYPEDILUM FALLAX	-	-	-	6	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	19	125	-	28	-	-
PROCLADIUS SP	91	-	62	37	19	6	9	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	68	206
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	467	262
ROBACKIA SP	-	-	-	-	-	-	9	-	-
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	12	-	-	-	-	-	-	-

TABLE J-3b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	11	12	13	14	15	16	17	18	19	******
XENOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	********
UNDESCRIBED CHIRONOMINI A	-	-	-	12	-	-	-	-	-	********
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	6	-	-	-	********
BAETIS SP	-	-	-	-	-	-	20	-	-	********
TRICORYTHODES ALBILINEATUS	6	-	-	6	-	6	-	405	43	********
CAMPELOMA SP	-	5	-	-	-	-	-	-	6	********
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	5	-	-	75	-	-	********
CHAOBORUS SP	405	5	3782	191	2311	-	-	12	6	********
POTAMYIA FLAVA	-	-	-	31	-	-	-	4347	1950	********
CORBICULA MANILENSIS	119	1171	-	112	380	417	925	4100	7425	********
CYRNELLUS SP	-	-	-	12	6	-	-	-	-	********
DINEUTUS SP	-	-	-	-	-	-	-	6	-	********
DUGESIA SP	-	-	-	-	-	-	-	-	-	********
FERRISSIA SP	-	-	-	-	-	-	-	5	19	********
FOSSARIA SP	-	5	-	-	-	-	-	6	-	********
GOMPHUS SP	-	-	-	-	-	-	-	-	-	********
HELISOMA SP	-	25	-	-	-	-	-	-	-	********
HEXAGENIA SP	50	6	19	330	-	12	9	-	-	********
HIRUDINEA	12	-	-	-	-	-	-	44	-	********
HYALELLA AZTECA	-	37	-	-	-	424	-	-	-	********
LEPTOCERIDAE	-	75	-	6	-	-	6	-	-	********
NAIDIDAE	-	249	-	-	-	12	65	3103	44	********
NAIS SP	-	-	-	-	-	-	9	37	-	********
NEMATODA	-	19	6	-	-	19	9	-	-	********
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	37	-	-	********
PALAEMONETES PALUDOSUS	-	6	-	-	-	-	-	-	-	********
PHYSA SP	-	31	-	-	-	6	-	-	-	********
TUBIFICIDAE	243	473	255	12	243	55	131	405	6	********
TURBELLARIA	-	-	-	-	-	119	[illegible]	5126	972	********
TURBELLARIA B	-	-	-	-	-	-	106	93	59	********
UNIDENTIFIED [illegible]	-	-	-	-	-	-	-	-	-	********
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	5	-	-	-	-	5	********
UNIONIDAE	-	5	-	-	-	-	-	-	-	********
TOTAL NUMBER OF ORGANISMS	1001	2434	4201	1367	3140	1191	1631	23229	11756	******
NUMBER OF TAXA	13	23	8	26	7	16	19	24	15	******

TABLE J-4a

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I
(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1-M	1-W	2-M	2-W	3-M	3-W	4-E	4-M	4-W	5-E
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS SCAPULARIS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
ENDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
HARNISCHIA SP	-	-	-	-	-	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	19	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	19	37	-	19	-	-	-	-	-	-
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	-	-	-	-	-
PROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP A	-	-	-	19	-	-	-	-	-	-
PSECTROCLADIUS SP B	-	-	-	56	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	37	187	75	19	19	19	19	19	19
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
TRIBELOS JUCUNDUS	-	-	-	-	-	-	-	-	-	-
TRIBELOS SP	-	-	-	-	-	-	-	-	-	-
(TRISSOPELOPIA) SP	-	-	-	-	-	-	-	-	-	-

NOTE: -E East Bank
-M Mid Channel
-W West Bank
-A,B,C "Lake Type Station" Replicates

TABLE J-4a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1-M	1-W	2-M	2-W	3-M	3-W	4-E	4-M	4-W	5-E
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERACLEA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	-	-	-	-	-	-	-	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	224	561	523	4056	542	972	3215	795	1009	2131
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
GOMPHOIDES SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	-	-	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	-	-	-	37	-	-	-	-	467	-
NARPUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	93	262	-	-	37	-	-	75
PARAGYRACTIS SP	-	-	-	-	-	-	-	-	-	-
PERITHEMIS SP	-	-	-	-	-	-	-	-	-	-
POTAMYIA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	-	-	-	-	-	-	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	168	335	3888	1383	411	-	1724	75	-	1009
UNIDENTIFIED TRICOPTERA	-	-	-	-	-	-	-	-	-	-
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	430	971	4691	5907	972	991	5965	970	1495	3234
NUMBER OF TAXA	4	4	4	8	3	2	4	3	3	4

NOTE:
-E	East Bank
-M	Mid Channel
-W	West Bank
-A,B,C	"Lake Type Station" Replicates

TABLE J-4b

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	5-M	5-W	6-E	6-M	6-W	7-E	7-M	7-W	8-E	8-M
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	-	37	-	-
COELOTANYPUS SCAPULARIS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	-	37	-	-	-	-
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
ENDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	19	-	-	-	-	-	-	-
HARNISCHIA SP	-	-	-	-	-	37	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	-	-	-	-	-	-	19
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	-	-	-	-	-
PROCLADIUS SP	-	-	-	-	-	93	-	-	-	-
PSECTROCLADIUS SP A	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP B	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	56	37	37	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
TRIBELOS JUCUNDUS	-	-	-	-	-	-	-	-	-	-
TRIBELOS SP	-	-	-	-	-	-	-	-	-	-
(TRISSOPELOPIA) SP	-	-	-	-	-	-	-	-	-	-

NOTE:
-E East Bank
-M Mid Channel
-W West Bank
-A,B,C "Lake Type Station" Replicates

TABLE J-4b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	5-M	5-W	6-E	6-M	6-W	7-E	7-M	7-W	8-E	8-M
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERACLEA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	-	-	-	-	-	37	-	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	467	729	486	2243	953	37	149	93	149	112
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
GOMPHOIDES SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	-	131	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	-	-	-	-	-	243	-	37	56	75
NARPUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	91	-	-
OLIGOCHAETA FAMILY A	-	-	37	19	19	-	-	-	-	-
PARARGYRACTIS SP	-	-	-	-	-	-	-	-	-	-
PERITHEMIS SP	-	-	-	-	-	-	-	-	-	-
POTAMYIA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	19	-	-	-	-	-	19	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	1252	19	2374	224	56	19	-	-	-	-
UNIDENTIFIED TRICOPTERA	-	-	-	-	-	-	-	-	-	-
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	1775	785	2972	2486	1028	466	149	429	224	206
NUMBER OF TAXA	3	3	6	3	3	6	1	6	3	3

TABLE J-4c

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	8-W	9-A	9-B	9-C	10-A	10-B	10-C	11-A	11-B	11-C
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	19	19	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	243	206	168	-	-	19
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	206	-	-	37	19	-	168	355	318
COELOTANYPUS SCAPULARIS	-	-	243	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	19	19	37	-	-	-
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
ENDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
HARNISCHIA SP	-	-	-	-	-	-	19	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	37	-	19	-	-	-	-	-	-	-
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	-	-	-	-	-
PROCLADIUS SP	-	-	-	-	-	-	-	-	37	37
PSECTROCLADIUS SP A	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP B	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
TRIBELOS JUCUNDUS	-	-	-	-	-	-	-	-	-	-
TRIBELOS SP	-	-	-	-	-	-	-	-	-	-
(TRISSOPELOPIA) SP	-	-	-	-	-	-	-	-	-	-

TABLE J-4c (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	8-W	9-A	9-B	9-C	10-A	10-B	10-C	11-A	11-B	11-C
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERACLEA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	19	-	-	-	-	-	-
CHAOBORUS SP	-	-	19	37	-	-	-	37	93	37
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	318	149	224	149	149	392	149	449	336	299
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	19	-
GOMPHOIDES SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	19	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	318	430	654	75	206	75	149	149	187
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	37	131	355	299	187	37	75	37	19	19
NARPUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	37	-	19	56	131	37	-	19	37
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PARARGYRACTIS SP	-	-	-	-	-	-	-	-	-	-
PERITHEMIS SP	-	-	-	-	-	-	-	-	-	-
POTAMYIA SP	-	-	-	-	-	-	-	19	-	-
TUBIFICIDAE	75	37	-	19	168	149	299	19	-	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED TRICOPTERA	-	-	-	-	37	19	-	-	-	-
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	467	916	1309	1195	971	1178	950	474	1027	953
NUMBER OF TAXA	4	8	7	7	9	6	8	7	9	[illegible]

TABLE J-4d

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE I

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	12-E	12-M	12-W	13-A	13-B	13-C	14-E	14-M	14-W	15-E
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	19
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	93	19	19	93	-	168	11	19	131	19
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	19	19	187	37	75	55	230	56	56	187
COELOTANYPUS SCAPULARIS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	19	-	-	-	-	-	17	37	-	37
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	56	37	19	75	112	112	-	-	-	-
DICROTENDIPES LOBUS	131	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	19	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	56	-	17	-
ENDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	19	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
HARNISCHIA SP	-	-	-	19	19	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	785	56	-	-	-	11	-	-	-	-
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	-	-	-	-	19
PROCLADIUS SP	19	187	149	131	392	131	-	-	-	19
PSECTROCLADIUS SP A	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP B	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	19	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	206	168	1832	-	-	-	-	-	-	-
TRIBELOS JUCUNDUS	-	-	-	-	-	-	-	-	-	-
TRIBELOS SP	-	-	-	-	-	-	-	-	-	-
(TRISSOPELOPIA) SP	-	-	-	-	-	-	-	-	-	-

TABLE J-4d (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	12-E	12-M	12-W	13-A	13-B	13-C	14-E	14-M	14-W	15-E
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	-	19	-	-	-	-	93	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERACLEA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	19	-	-	-	37	-	-	-	-
CHAOBORUS SP	56	224	-	93	37	93	-	19	37	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	2019	112	3495	206	561	280	19	19	-	149
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
GOMPHOIDES SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	19	75	-	-	206	131	206	299
HIRUDINEA	19	-	-	19	-	19	-	-	-	-
HYALELLA AZTECA	112	-	131	-	-	-	19	-	-	-
NAIDIDAE	112	785	262	-	-	-	-	-	-	-
NAREUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	56	-	-	19	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PARARGYRACTIS SP	19	-	-	-	-	-	-	-	-	-
PERITHEMIS SP	19	-	-	-	-	-	-	-	-	-
POTAMYIA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	355	37	187	112	673	617	37	-	-	224
TURBELLARIA	131	-	93	-	-	-	-	-	-	-
TURBELLARIA B	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED TRICOPTERA	-	-	-	-	19	-	-	19	-	-
UNIONIDAE	-	19	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	4245	1682	6431	893	1899	1532	673	393	449	972
NUMBER OF TAXA	19	12	13	12	8	10	8	9	5	9

TABLE J-4e

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	15-M	15-W	16-E	16-M	16-W	17-M	17-W	18-E	18-M	18-W
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	56	-	19	-	19	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	112	19	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	19	-	-	-	-	-	-
CHIRONOMUS SP	19	-	-	617	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	37	19	19	-	-	-	-	-
COELOTANYPUS CONCINNUS	112	149	-	-	56	-	-	-	-	-
COELOTANYPUS SCAPULARIS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	93	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	75	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	19	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	112	262	-	-	-	-	-	-
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
ENDOCHIRONOMUS SP	-	-	-	243	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
HARNISCHIA SP	-	19	-	-	37	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	75	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	318	-	-	-	-	-	-
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	-	-	-	-	-
PROCLADIUS SP	19	-	-	75	56	-	-	-	-	-
PSECTROCLADIUS SP A	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP B	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	19	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	19	-	-	-	-
TANYTARSUS SP	-	-	-	37	-	-	-	-	-	-
TRIBELOS JUCUNDUS	-	-	-	37	-	-	-	-	-	-
TRIBELOS SP	-	-	-	-	-	-	-	-	-	-
(TRISSOPELOPIA) SP	-	-	19	-	-	-	-	-	-	-

TABLE J-4e (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	15-M	15-W	16-E	16-M	16-W	17-M	17-W	18-E	18-M	18-W
NON-CHIRONOMIDAE										
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERACLEA SP	-	-	-	-	-	-	-	19	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	93	19	-	37	-	-	-	-	-	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	19	-	37
CORBICULA MANILENSIS	224	75	7234	168	262	262	19	168	2617	149
CYRNELLUS SP	-	-	19	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
GOMPHOIDES SP	-	-	-	19	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	617	19	-	-	187	-	-	-	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	-	-	1458	131	19	673	-	19	-	-
NARPUS SP	19	-	37	-	-	-	-	-	-	-
NEMATODA	-	19	-	19	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PARARGYRACTIS SP	-	-	-	-	-	-	-	-	-	-
PERITHEMIS SP	-	-	-	-	-	-	-	-	-	-
POTAMYIA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	280	243	1084	579	-	-	37	-	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED TRICOPTERA	-	-	-	-	-	-	-	-	-	-
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	1159	583	9365	3291	1253	954	19	262	2617	185
NUMBER OF TAXA	9	7	12	19	10	3	1	5	1	2

TABLE J-4f

LAKE SEMINOLE #O MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 1

(April 17-21, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	19-E	19-M	19-W	******	******	******	******	******	******	******
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	********	********	********	********	********	********	********
ABLABESMYIA MALLOCHI	-	-	-	********	********	********	********	********	********	********
ABLABESMYIA PARAJANTA	-	-	-	********	********	********	********	********	********	********
CHIRONOMUS SP	-	-	19	********	********	********	********	********	********	********
CLADOTANYTARSUS SP	37	-	-	********	********	********	********	********	********	********
COELOTANYPUS CONCINNUS	-	-	-	********	********	********	********	********	********	********
COELOTANYPUS SCAPULARIS	-	-	-	********	********	********	********	********	********	********
COELOTANYPUS TRICOLOR	-	-	-	********	********	********	********	********	********	********
CORYNONEURA SP	-	-	-	********	********	********	********	********	********	********
NEAR CORYNONEURA SP	-	-	-	********	********	********	********	********	********	********
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	********	********	********	********	********	********	********
CRYPTOCHIRONOMUS FULVUS	-	-	-	********	********	********	********	********	********	********
DICROTENDIPES LOBUS	-	-	-	********	********	********	********	********	********	********
DICROTENDIPES MODESTUS	-	-	-	********	********	********	********	********	********	********
EINFELDIA SP	-	-	-	********	********	********	********	********	********	********
ENDOCHIRONOMUS SP	-	-	-	********	********	********	********	********	********	********
EPOICOCLADIUS SP	-	-	-	********	********	********	********	********	********	********
GLYPTOTENDIPES SP	-	-	-	********	********	********	********	********	********	********
HARNISCHIA SP	-	-	-	********	********	********	********	********	********	********
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	********	********	********	********	********	********	********
POLYPEDILUM NEAR CONVICTUM	37	-	-	********	********	********	********	********	********	********
POLYPEDILUM HALTERALE	-	-	56	********	********	********	********	********	********	********
POLYPEDILUM NEAR ILLINOENSE	-	-	-	********	********	********	********	********	********	********
PROCLADIUS SP	-	-	-	********	********	********	********	********	********	********
PSECTROCLADIUS SP A	-	-	-	********	********	********	********	********	********	********
PSECTROCLADIUS SP B	-	-	-	********	********	********	********	********	********	********
RHEOTANYTARSUS SP	-	-	-	********	********	********	********	********	********	********
RUEACKIA SP	-	-	-	********	********	********	********	********	********	********
TANYTARSUS SP	-	-	-	********	********	********	********	********	********	********
TRIBELOS JUCUNDUS	-	-	-	********	********	********	********	********	********	********
TRIBELOS SP	19	-	-	********	********	********	********	********	********	********
(TRISSOPELOPIA) SP	-	-	-	********	********	********	********	********	********	********

AD-A104 408 WATER AND AIR RESEARCH INC GAINESVILLE FL F/G 8/8
WATER QUALITY MANAGEMENT STUDIES LAKE SEMINOLE, APRIL-NOVEMBER --ETC(U)
SEP 81 DACW01-78-C-0101
UNCLASSIFIED ACF-80-10 NL

6 OF 6
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TABLE J-4f (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	19-E	19-M	19-W	******	******	******	******	******	******	******
NON-CHIRONOMIDAL										
TRICORYTHODES ALBILINEATUS	19	-	-	******	******	******	******	******	******	******
CAMPELOMA SP	93	-	-	******	******	******	******	******	******	******
CERACLEA SP	-	-	-	******	******	******	******	******	******	******
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	******	******	******	******	******	******	******
CHAOBORUS SP	-	-	-	******	******	******	******	******	******	******
POTAMYIA FLAVA	-	-	-	******	******	******	******	******	******	******
CORBICULA MANILENSIS	355	374	56	******	******	******	******	******	******	******
CYRNELLUS SP	-	-	-	******	******	******	******	******	******	******
EUPERA SP	-	-	-	******	******	******	******	******	******	******
GOMPHOIDES SP	-	-	-	******	******	******	******	******	******	******
GOMPHUS SP	-	-	-	******	******	******	******	******	******	******
HEXAGENIA SP	-	-	-	******	******	******	******	******	******	******
HIRUDINEA	-	-	-	******	******	******	******	******	******	******
HYALELLA AZTECA	-	-	-	******	******	******	******	******	******	******
NAIDIDAE	187	-	-	******	******	******	******	******	******	******
NAREUS SP	-	-	-	******	******	******	******	******	******	******
NEMATODA	-	-	-	******	******	******	******	******	******	******
OLIGOCHAETA FAMILY A	-	-	-	******	******	******	******	******	******	******
PARARGYRACTIS SP	-	-	-	******	******	******	******	******	******	******
PERITHEMIS SP	-	-	-	******	******	******	******	******	******	******
POTAMYIA SP	-	-	-	******	******	******	******	******	******	******
TUBIFICIDAE	168	-	131	******	******	******	******	******	******	******
TURBELLARIA	-	-	-	******	******	******	******	******	******	******
TURBELLARIA B	-	-	-	******	******	******	******	******	******	******
UNIDENTIFIED TRICOPTERA	-	-	-	******	******	******	******	******	******	******
UNIONIDAE	-	-	-	******	******	******	******	******	******	******
TOTAL NUMBER OF ORGANISMS	915	374	262	******	******	******	******	******	******	******
NUMBER OF TAXA	8	1	4	******	******	******	******	******	******	******

TABLE J-5a

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3
(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1-E	1-M	1-W	2-E	2-M	2-W	3-E	3-M	3-W	4-E
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	12	-	-
NEAR CORYNONEURA SP B	-	-	-	-	-	-	-	12	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	-	-	-	-	-	-
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP A	-	-	-	-	-	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
PARATENDIPES "CONNECTENS" (A)	-	-	-	-	-	-	-	-	-	-
PHAENOPSECTRA SP	-	-	-	-	-	-	12	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	-	-	-	-	-	-	-
PROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSEUDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	56	37	-	56	12	12
STEMPELLINA SP	-	-	-	-	-	-	-	-	-	-

NOTE: -E East Bank
-M Mid Channel
-W West Bank
-A,B,C "Lake Type Station" Replicates

TABLE J-5a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1-E	1-M	1-W	2-E	2-M	2-W	3-	3-W	4-W	4-E
CHIRONOMIDAE										
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
XENOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	-	-	37	-	-	19	-	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	635	243	1682	392	318	1533	37	2072	93	879
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	-	-	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	-	-	-	-	-	-	56	-	37	19
NARPUS SP	-	-	-	-	-	-	19	-	-	-
NEMATODA	-	-	-	-	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PHYLOCENTROPUS SP	-	-	-	-	-	-	-	-	-	-
STENONEMA SP	-	-	-	19	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	-	-	-	-	-	-	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	149	-	224	-	411	-	-	1028	-	56
TOTAL NUMBER OF ORGANISMS	784	243	1906	411	822	1570	149	4113	149	972
NUMBER OF TAXA	2	1	2	2	4	2	4	6	3	4

TABLE J-5b

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	4-M	4-W	5-E	5-M	5-W	6-E	6-M	6-W	7-E	7-M
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	131	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	-	-	19	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP B	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	37	-	-	-	-	-	19	19
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP	-	-	-	-	-	-	-	37	19	-
PARACLADOPELMA SP A	-	-	-	-	-	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
PARATENDIPES "CONNECTENS" (A)	-	-	-	-	-	-	-	-	-	-
PHAENOPSECTRA SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	56	-	-	-	19	37	-
PROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP	-	-	56	-	-	-	-	-	-	-
PSEUDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	93	-	336	262	187	-	19	-	-	-
STEMPELLINA SP	-	-	-	-	-	-	-	-	-	-

TABLE J-5b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/SQ M)									
	4-M	4-W	5-E	5-M	5-W	6-E	6-M	6-W	7-E	7-M
CHIRONOMIDAE										
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
XENOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	-	-	-	-	37	-	374	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	131	2542	1950	2374	1234	262	822	262	785	467
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	-	19	19	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	19	131	935	729	-	37	19	-	-	-
NAREUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	19	-	-	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PHYLOCENTROPUS SP	-	-	-	-	-	-	-	-	-	-
STENONEMA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	-	-	-	-	1143	1215	75
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	-	-	56	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	243	2692	3270	3421	1421	299	937	1424	2407	561
NUMBER OF TAXA	3	3	6	4	2	2	4	[illegible]	[illegible]	3

TABLE J-5c

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	7-W	8-E	8-M	8-W	9-A	9-B	9-C	10-A	10-B	10-C
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	56	19	112	149	19	-
COELOTANYPUS TRICOLOR	-	-	-	-	19	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP B	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	56	37	-	75	-	37	19	37	19	-
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	19	-	-	-	-	-	-	-	19	19
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP	19	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP A	-	-	-	-	-	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
PARATENDIPES "CONNECTENS" (A)	-	-	-	-	-	-	-	-	-	-
PHAENOPSECTRA SP	-	19	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	224	-	-	-	75	56	19
PROCLADIUS SP	112	-	-	-	-	19	112	149	19	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSEUDOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	-	-	-	-	-
STEMPELLINA SP	-	-	-	-	-	-	-	-	-	-

TABLE J-5c (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	7-W	8-E	8-M	8-W	9-A	9-B	9-C	10-A	10-B	10-C
CHIRONOMIDAE										
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
XENOCHIRONOMUS SP	-	466	392	-	-	-	-	-	-	-
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	467	37	-	-	37	-	19	56	37	75
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	-	262	2841	37	37	19	56	149	692	766
CYRNELLUS SP	-	-	-	-	-	-	-	-	19	-
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	19	-	19	-	-	-	-	-	-	-
HEXAGENIA SP	197	19	-	-	411	-	19	187	-	-
HIRUDINEA	-	-	-	-	-	19	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LEPTOCERIDAE	37	-	-	-	-	37	-	75	-	-
NAIDIDAE	-	19	-	-	-	-	-	-	-	-
NAREUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	19	-	-	-	-	37	19	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PHYLOCENTROPUS SP	-	-	-	-	-	-	-	-	-	-
STENONEMA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	991	112	-	3325	3439	1701	7757	5883	748	432
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	1926	991	3252	4261	3997	1888	9113	6790	1628	1309
NUMBER OF TAXA	10	8	3	4	6	8	8	9	9	5

TABLE J-5d

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	11-A	11-B	11-C	12-E	12-M	12-W	13-A	13-B	13-C	14-[illegible]
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	56
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	19
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	37	19	-	19
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	19	131	37	19	19	-	37	141	-	355
COELOTANYPUS TRICOLOR	-	37	-	-	-	-	37	19	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP	-	-	-	-	-	-	-	-	-	-
NEAR CORYNONEURA SP B	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	-	-	-	19	-	19
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	37
EINFELDIA SP	-	-	-	-	-	-	-	-	-	19
EPOICOCLADIUS SP	-	-	-	-	-	-	19	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	37
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	19
PARACHIRONOMUS HIRTALATUS	-	-	-	19	-	-	-	-	-	-
PARACLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP A	-	-	-	-	-	-	-	-	-	37
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	-	-	-	-
PARATENDIPES "CONNECTENS" (A)	-	-	-	-	-	-	-	-	-	19
PHAENOPSECTRA SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	-	37	56	-	-	-	19
PROCLADIUS SP	-	-	19	19	-	-	37	19	93	93
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSEUDOCHIRONOMUS SP	-	-	-	-	-	19	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	-	-	-	-	-
STEMPELLINA SP	-	-	-	-	-	-	-	-	-	-

TABLE J-5d (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION (ORGANISMS/SQ M)									
	11-A	11-B	11-C	12-T	12-M	12-B	13-A	13-B	13-C	14-[illegible]
CHIRONOMIDAE										
TANYPUS STELLATUS	-	19	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
XENOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	-	-	-	-	56
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	56	673	411	-	-	-	3193	3607	411	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	-	-	-	93	355	-	-	-	-	93
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	19	-	-	-
HEXAGENIA SP	37	-	-	-	-	-	374	336	19	991
HIRUDINEA	-	19	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	75	75	-	-	-	-	37
LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	-	-	-	-	-	-	-	-	-	-
NARPUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	19	-	19	-	-	56	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PHYLOCENTROPUS SP	-	-	-	-	-	-	-	-	-	-
STENONEMA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	1383	243	1178	430	299	75	1028	1139	1196	112
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA B	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	1495	1141	1645	674	785	150	4747	5309	1710	2037
NUMBER OF TAXA	4	7	4	7	5	3	10	9	4	19

TABLE J-5e

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-76-C-0101) PHASE I, CYCLE 3

(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	14-M	14-W	15-E	15-M	15-W	16-E	16-M	16-W	17-M	17-W
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	75	-	19	-	-	-	-	37	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	19	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	19	-	-	-
CHIRONOMUS SP	19	19	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	56	-	75	1140
COELOTANYPUS CONCINNUS	168	467	75	19	37	-	-	37	-	-
COELOTANYPUS TRICOLOR	56	-	-	-	-	-	-	-	-	-
CORYNONEURA SP	-	-	-	-	-	-	-	-	19	37
NEAR CORYNONEURA SP	-	-	-	-	-	-	19	-	19	-
NEAR CORYNONEURA SP B	-	-	-	-	-	-	-	-	-	-
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	-	-	-	-	93
CRYPTOCHIRONOMUS FULVUS	37	-	-	-	37	19	37	-	37	336
CRYPTOCLADOPELMA SP	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	93	-	-
EINFELDIA SP	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	19	19	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	37	19	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP	19	-	-	-	-	-	-	-	-	-
PARACLADOPELMA SP A	-	-	-	-	-	-	-	-	-	-
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	-	19	-	-	411
PARATENDIPES "CONNECTENS" (A)	75	-	-	-	-	-	-	-	-	-
PHAENOPSECTRA SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	37	-	-	19	-	19	19	131	56	75
PROCLADIUS SP	75	131	19	37	56	-	-	19	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSEUDOCHIRONOMUS SP	19	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	-	19	-	19	-
STEMPELLINA SP	-	-	-	-	-	-	-	-	-	19

TABLE J-5e (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	14-M	14-W	15-E	15-M	15-W	16-E	16-M	17-E	17-M	17-W
CHIRONOMIDAE										
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	149	-	-	-	-	-	-	-	-	-
XENOCHIRONOMUS SP	-	-	-	-	-	149	-	19	-	-
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	19	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	19	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	19	-	37	37
CHAOBORUS SP	19	75	804	1458	1252	37	19	2093	-	37
POTAMYIA FLAVA	37	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	392	-	56	56	449	485	6608	56	4467	149
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
EMPIDIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	804	19	505	299	318	-	-	112	-	-
HIRUDINEA	-	-	-	-	-	-	-	19	-	-
HYALELLA AZTECA	-	-	-	-	-	-	19	7311	-	-
LEPTOCERIDAE	19	-	-	-	19	-	-	-	-	-
NAIDIDAE	-	-	-	-	-	-	-	-	-	-
NAUPUS SP	-	-	-	-	-	19	-	-	-	-
NEMATODA	19	-	-	-	-	-	19	-	19	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	56	-
PHYLOCENTROPUS SP	19	-	-	-	-	-	-	-	-	-
STENONEMA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	243	93	93	-	822	-	784	280	579	-
TURBELLARIA	-	-	-	-	-	-	-	299	-	-
TURBELLARIA B	-	-	-	-	-	-	635	-	-	-
TOTAL NUMBER OF ORGANISMS	2318	823	1590	1907	2990	720	8320	11027	5420	2334
NUMBER OF TAXA	20	7	8	7	9	6	15	14	12	10

TABLE J-5f

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 3
(July 17-20, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/SQ M)									
	18-E	18-M	18-W	19-E	19-M	******	******	******	******	******
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	*******	*******	*******	*******	*******
ABLABESMYIA MALLOCHI	-	-	-	19	-	*******	*******	*******	*******	*******
ABLABESMYIA PARAJANTA	-	-	37	56	-	*******	*******	*******	*******	*******
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	*******	*******	*******	*******	*******
CHIRONOMUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
CLADOTANYTARSUS SP	19	-	-	-	-	*******	*******	*******	*******	*******
COELOTANYPUS CONCINNUS	-	-	-	-	-	*******	*******	*******	*******	*******
COELOTANYPUS TRICOLOR	-	-	-	-	-	*******	*******	*******	*******	*******
CORYNONEURA SP	-	-	-	19	-	*******	*******	*******	*******	*******
NEAR CORYNONEURA SP	-	-	-	-	-	*******	*******	*******	*******	*******
NEAR CORYNONEURA SP B	-	-	-	-	-	*******	*******	*******	*******	*******
"CRYPTOCHIRONOMUS" CF ROLLI	-	-	-	-	-	*******	*******	*******	*******	*******
CRYPTOCHIRONOMUS FULVUS	75	-	-	19	-	*******	*******	*******	*******	*******
CRYPTOCLADOPELMA SP	-	-	-	19	-	*******	*******	*******	*******	*******
DICROTENDIPES MODESTUS	-	-	-	-	-	*******	*******	*******	*******	*******
EINFELDIA SP	-	-	-	-	-	*******	*******	*******	*******	*******
EPOICOCLADIUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
GLYPTOTENDIPES SP	-	56	-	-	-	*******	*******	*******	*******	*******
MICROCHIRONOMUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	*******	*******	*******	*******	*******
PARACLADOPELMA SP	-	-	-	-	-	*******	*******	*******	*******	*******
PARACLADOPELMA SP A	-	-	-	-	-	*******	*******	*******	*******	*******
PARALAUTERBORNIELLA NIGROHALTERALIS	-	-	-	-	-	*******	*******	*******	*******	*******
PARATENDIPES "CONNECTENS" (A)	-	-	-	-	-	*******	*******	*******	*******	*******
PHAENOPSECTRA SP	-	-	-	-	-	*******	*******	*******	*******	*******
POLYPEDILUM NEAR CONVICTUM	19	4187	5065	355	5739	*******	*******	*******	*******	*******
POLYPEDILUM HALTERALE	-	-	-	-	562	*******	*******	*******	*******	*******
PROCLADIUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
PSECTROCLADIUS SP	-	75	56	-	-	*******	*******	*******	*******	*******
PSEUDOCHIRONOMUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
RHEOTANYTARSUS SP	-	93	131	19	72	*******	*******	*******	*******	*******
ROBACKIA SP	-	19	-	-	127	*******	*******	*******	*******	*******
STEMPELLINA SP	-	-	-	-	-	*******	*******	*******	*******	*******

TABLE J-5f (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	18-E	18-M	18-W	19-E	19-W	******	******	******	******	******
CHIRONOMIDAE										
TANYPUS STELLATUS	-	-	-	-	-	*******	*******	*******	*******	*******
TANYTARSUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
XENOCHIRONOMUS SP	-	-	19	-	-	*******	*******	*******	*******	*******
UNDESCRIBED CHIRONOMINI A	-	-	-	-	-	*******	*******	*******	*******	*******
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	18	*******	*******	*******	*******	*******
TRICORYTHODES ALBILINEATUS	19	617	336	206	525	*******	*******	*******	*******	*******
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	*******	*******	*******	*******	*******
CHAOBORUS SP	-	-	19	37	-	*******	*******	*******	*******	*******
POTAMYIA FLAVA	-	9364	20243	1346	13012	*******	*******	*******	*******	*******
CORBICULA MANILENSIS	1084	1950	355	4149	5437	*******	*******	*******	*******	*******
CYRNELLUS SP	-	280	149	280	-	*******	*******	*******	*******	*******
EMPIDIDAE (NO LARVAL KEY)	-	-	19	-	-	*******	*******	*******	*******	*******
GOMPHUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
HEXAGENIA SP	-	-	-	-	-	*******	*******	*******	*******	*******
HIRUDINEA	-	-	19	56	-	*******	*******	*******	*******	*******
HYALELLA AZTECA	-	-	-	-	-	*******	*******	*******	*******	*******
LEPTOCERIDAE	-	-	-	-	-	*******	*******	*******	*******	*******
NAIDIDAE	411	916	149	149	54	*******	*******	*******	*******	*******
NARPUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
NEMATODA	-	-	-	-	-	*******	*******	*******	*******	*******
OLIGOCHAETA FAMILY A	-	-	-	-	-	*******	*******	*******	*******	*******
PHYLOCENTROPUS SP	-	-	-	-	-	*******	*******	*******	*******	*******
STENONEMA SP	-	-	-	56	18	*******	*******	*******	*******	*******
TUBIFICIDAE	804	353	262	933	35	*******	*******	*******	*******	*******
TURBELLARIA	37	2187	1290	169	-	*******	*******	*******	*******	*******
TURBELLARIA B	710	75	-	-	-	*******	*******	*******	*******	*******
TOTAL NUMBER OF ORGANISMS	3179	20074	28140	7888	25570	******	******	******	******	******
NUMBER OF TAXA	9	13	15	17	11	******	******	******	******	******

TABLE J-6a

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1-E	1-M	2-E	2-M	3-E	3-M	3-W	4-E	4-M	4-W
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
[illegible] CHERNOVSKIIA ORBICUS	-	56	19	-	-	-	-	-	19	131
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CRICOTOPUS SP	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS CF. [illegible]	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	-	-	75	-	-	37
CRYPTOTENDIPES [illegible]	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES [illegible]	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA NATCHITOCHEAE	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	168	-	-	-	19	-	-	-	-	-
LABRUNDINIA VIRESCENS	-	-	-	-	-	-	-	-	-	-
LARSIA SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
MICROPSECTRA SP	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	-	-	-
PARAT[illegible] (A)	-	-	-	-	-	-	-	-	-	-
PARAT[illegible]	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM [illegible] CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM FALLAX	19	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	-	-	-	-	-	131	-	-	19	-
PROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	75	37	19	19	19	-	19	149	131
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-

NOTE:
- -E East Bank
- -M Mid Channel
- -W West Bank
- -A,B,C "Lake Type Station" Replicates

TABLE J-6a (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	1-C	1-M	2-C	2-M	3-C	3-M	3-W	4-C	4-M	4-W
[illegible] SP	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED CHIRONOMIDAE A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
BAETIS SP	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	-	-	19	19	19	-	-	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	635	1733	654	299	1850	4802	1626	720	2960	5913
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
DINEUTUS SP	-	-	-	-	-	-	-	-	-	-
DUGESIA SP	-	-	19	-	-	-	-	-	-	-
FERRISSIA SP	-	-	-	-	-	-	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HELISOMA SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	-	-	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	56	-	-	-	37	-	-	-	-	37
[illegible] SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PALAEMONETES PALUDOSUS	-	-	-	-	-	-	-	-	-	-
PHYSA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	-	37	37	-	-	-	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
[illegible]	-	112	206	140	-	131	37	112	187	131
[illegible]	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	-	-	-	-	-	-	-
UNIONIDAE	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	879	1841	935	467	1981	5099	1757	860	3234	6280
NUMBER OF TAXA	6	4	5	3	6	6	4	3	5	6

TABLE J-6b

LAKE SEMINOLE AQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	5-E	5-M	5-W	6-E	6-M	6-W	7-E	7-M	7-W	8-E
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	19	-	19	75	19	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	37	-	19	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	-	149	-	-	19
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CRICOTOPUS SP	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS CF ROLLI	-	-	-	37	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	19	-	-	-	37	149	19	112	-	19
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NEOMODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA NATCHITOCHEAE	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
LABRUNDINIA VIRESCENS	-	-	-	-	-	-	-	-	-	-
LARSIA SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
MICROPSECTRA SP	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	-	-	-
PARATENDIPES [illegible] (A)	-	-	-	-	-	-	-	-	-	-
PARATENDIPES SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM NEAR CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM FALLAX	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	19	-	-	56	37	-	-	56	19	-
PROCLADIUS SP	-	-	-	-	-	19	19	-	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
[illegible] SP	-	149	37	-	19	-	-	-	-	-
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-

TABLE J-6b (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	5-E	5-M	5-W	6-E	6-M	6-W	7-E	7-M	7-W	8-E
[illegible]	-	-	-	-	-	-	11	-	2001	262
[illegible] CHIRONOMIDAE A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	12	-	-	-	-
BAETIS SP	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	-	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	-	-	-	-	-	37	142	12	-	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	5775	4486	6112	6972	2935	241	91	1720	2112	804
CYRNELLUS SP	-	-	-	-	-	-	-	-	-	-
DINEUTUS SP	-	-	-	-	-	-	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
FOSSARIA SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HELISOMA SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	-	-	-	12	-	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
NAIDIDAE	720	673	-	922	1140	12	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	-	-	-	-	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PALAEMONETES PALUDOSUS	-	-	-	-	-	-	-	-	-	-
PHYSA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	-	-	-	37	-	3047	5232	8237	75	1009
[illegible]	-	-	-	-	-	-	-	-	-	-
[illegible]	542	430	112	-	542	-	-	-	-	-
UNIDENTIFIED LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	-	-	-	-	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	7104	5739	6280	7999	4729	3552	6803	9968	4318	2113
NUMBER OF TAXA	6	4	4	6	7	7	9	5	5	5

TABLE J-6c

LAKE SEMINOLE AQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-74-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	8-M	8-W	9-E	9-M	9-W	10-E	10-M	10-W	11-E	11-M
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	75	131	149	-	-	-	-	-	19
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	-	-	-	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	37	56
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	262	411	497	-	-	-	-	93
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CRICOTOPUS SP	19	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS CF. [illegible]	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	37	-	19	-	-	-	19	19	-	19
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NEOMODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA NATCHITOCHEAE	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	19	-
LABRUNDINIA VIRESCENS	-	-	-	-	-	-	-	-	-	-
LARSIA SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	19	19	-	-	-	-	-	-
MICROPSECTRA SP	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	-	-	-
PARATENDIPES [illegible] (A)	-	-	-	-	-	-	-	-	-	-
PARATENDIPES SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM [illegible] CONVICTUM	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM FALLAX	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	37	-	19	-	-	-	93	75	-	-
PROCLADIUS SP	-	19	168	112	131	-	-	-	19	224
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA D	-	-	-	-	-	-	-	-	-	-
TANYPUS STELLATUS	-	-	37	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-

TABLE J-6c (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	8-M	8-W	9-E	9-M	9-W	10-E	10-M	10-W	11-E	11-W
[illegible] SP	-	-	-	-	-	-	-	-	-	-
[illegible] A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
BAETIS SP	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	-	19	-
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	-
CHAOBORUS SP	19	37	187	37	131	56	36	93	131	579
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	-	-
CORBICULA MANILENSIS	2146	262	75	168	206	602	673	1065	243	75
CYRNELLUS SP	19	-	-	-	-	-	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
FERRISSIA SP	-	-	-	-	-	-	-	-	-	-
FOSSARIA SP	-	-	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	19	-	-	-	-	-
HELISOMA SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	131	168	168	37	-	-	-	-	75
HIRUDINEA	-	-	-	-	-	-	-	-	37	-
HYALELLA AZTECA	-	-	-	-	-	-	-	-	-	-
LEPTOCERIDAE	-	-	37	19	-	-	-	-	-	-
NAIDIDAE	-	-	-	-	-	-	-	-	-	-
[illegible] SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	19	-	-	19	-	19	17	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PALAEMONETES PALUDOSUS	-	-	-	-	-	-	-	-	-	-
PHYSA SP	-	-	-	-	-	-	-	-	-	-
TUBIFICIDAE	1308	4766	1458	1757	3009	243	224	131	56	355
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED [illegible]	-	-	-	-	-	-	-	19	-	-
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	-	-	-	-	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	3607	5271	2563	2878	4430	1010	1102	1432	561	1495
NUMBER OF TAXA	8	6	12	10	7	4	6	6	9	9

TABLE J-6d

LAKE SEMINOLE WQ MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	11-W	12-E	12-M	12-W	13-A	13-B	13-C	14-E	14-M	14-W
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	19	-	131	187	56
ABLABESMYIA MALLOCHI	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA [illegible] AJANTA	-	112	-	-	-	-	-	19	-	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	37
CLADOTANYTARSUS SP	-	19	19	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	-	-	-	-	-	335	112	505	37	561
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	-	-
CRICOTOPUS SP	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS CF ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	168	112	56	37	-	-	-	19	-
DICROTENDIPES LOBUS	-	112	-	19	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NEOMODESTUS	-	-	-	-	-	-	-	19	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	-	-	-	-	-
EINFELDIA NATCHITOCHEAE	-	-	-	-	-	-	-	37	-	19
EPOICOCLADIUS SP	-	-	-	-	-	-	-	19	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	-	-
LABRUNDINIA VIRESCENS	-	19	-	-	-	-	-	-	-	-
LARSIA SP	-	19	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	19	-
MICROPSECTRA SP	-	-	19	19	-	-	-	-	-	-
PARACHIRONOMUS HIRTALATUS	-	75	19	-	-	-	-	-	-	56
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	-	-	-
PARATENDIPES CONNECT. NSP (A)	-	-	-	-	-	-	-	-	37	-
PARATENDIPES SP	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM [illegible] CONVICTUM	-	-	-	-	-	-	-	19	-	-
POLYPEDILUM FALLAX	-	-	-	-	-	-	-	-	19	-
POLYPEDILUM HALTERALE	-	-	-	-	-	-	-	37	19	-
PROCLADIUS SP	-	-	-	-	56	112	19	75	37	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	-	-
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
ROBACKIA SP	-	-	-	-	-	-	-	-	-	-
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	37	-	-	-	-	-	-	-	-

TABLE J-6d (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	11-W	12-E	12-M	12-W	13-A	13-B	13-C	14-E	14-M	14-W
ABLABESMYIA SP	-	-	-	-	-	-	-	-	-	-
UNDESCRIBED CHIRONOMIDAE A	-	-	-	-	-	-	-	-	37	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	-	-	-	-	-	-
CAENIS SP	-	-	-	-	-	-	-	-	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	-	-	-	-	19	-	-
CAMPELOMA SP	-	19	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	-	-	-	19
CHAOBORUS SP	505	-	-	19	1047	4001	6206	243	131	168
POTAMYIA FLAVA	-	-	-	-	-	-	-	93	-	-
CORBICULA MANILENSIS	37	3103	19	332	-	-	-	37	797	-
CYRNELLUS SP	-	-	-	-	-	-	-	-	37	-
DINEUTUS SP	-	-	-	-	-	-	-	-	-	-
EUPERA SP	-	-	-	-	-	-	-	-	-	-
FERRISSIA SP	-	-	-	-	-	-	-	-	-	-
FOSSARIA SP	-	19	-	-	-	-	-	-	-	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HELISOMA SP	-	75	-	-	-	-	-	-	-	-
HEXAGENIA SP	75	-	-	19	-	56	-	505	430	56
HIRUDINEA	-	-	-	-	-	-	-	-	-	-
HYALELLA AZTECA	-	37	19	56	-	-	-	-	-	-
LEPTOCERIDAE	19	224	-	-	-	-	-	19	-	-
NAIDIDAE	-	93	243	561	-	-	-	-	-	-
NAPEUS SP	-	-	-	-	-	-	-	-	-	-
NEMATODA	-	19	-	37	19	-	-	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	-	-	-	-
PALAEMONETES PALUDOSUS	-	19	-	-	-	-	-	-	-	-
PHYSA SP	-	93	-	-	-	-	-	-	-	-
TUBIFICIDAE	319	262	654	505	598	56	112	-	37	-
TURBELLARIA	-	-	-	-	-	-	-	-	-	-
TURBELLARIA [illegible]	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	-	-	-	-	-	-	19
UNIONIDAE	-	19	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	954	4563	1134	1693	1757	4672	6440	1777	1345	991
NUMBER OF TAXA	5	20	8	10	5	6	4	15	14	9

TABLE J-6e

LAKE SEMINOLE [illegible] MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5
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TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ-M)									
	15-E	15-M	15-W	16-E	16-M	16-W	17-M	17-W	18-E	18-M
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	-	-	-	-	-	-
ABLABESMYIA MALLOCHI	-	-	-	-	-	19	-	-	19	-
ABLABESMYIA PARAJANTA	-	-	-	-	-	112	-	19	75	-
NEAR CHERNOVSKIIA ORBICUS	-	-	-	-	-	-	-	-	-	-
CHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
CLADOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	-
COELOTANYPUS CONCINNUS	37	131	-	-	-	-	-	-	-	-
COELOTANYPUS TRICOLOR	-	-	-	-	-	-	-	-	19	-
CRICOTOPUS SP	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS CF. ROLLI	-	-	-	-	-	-	-	-	-	-
CRYPTOCHIRONOMUS FULVUS	-	-	-	19	56	-	112	37	-	19
DICROTENDIPES LOBUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES MODESTUS	-	-	-	-	-	75	-	-	-	19
DICROTENDIPES NEOMODESTUS	-	-	-	-	-	-	-	-	-	-
DICROTENDIPES NERVOSUS	-	-	-	-	-	19	-	-	-	-
EINFELDIA NATCHITOCHEAE	-	-	-	-	-	-	-	-	-	-
EPOICOCLADIUS SP	-	-	-	-	-	-	-	-	-	-
GLYPTOTENDIPES SP	-	-	-	-	-	-	-	-	19	206
LABRUNDINIA VIRESCENS	-	-	-	-	-	-	-	-	-	-
LARSIA SP	-	-	-	-	-	-	-	-	-	-
MICROCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
MICROPSECTRA SP	-	-	-	-	-	-	-	-	19	-
PARACHIRONOMUS HIRTALATUS	-	-	-	-	-	-	-	-	-	-
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	-	-	-	-	-	19
[illegible] (?)	-	-	-	-	-	-	-	-	-	-
PARATENDIPES SP	-	-	-	-	-	-	-	19	-	-
POLYPEDILUM SP. NR. CONVICTUM	-	-	-	-	-	-	-	-	56	12807
POLYPEDILUM FALLAX	-	-	-	-	-	-	-	-	-	-
POLYPEDILUM HALTERALE	56	-	318	-	-	-	19	37	-	-
PROCLADIUS SP	19	37	-	19	-	-	19	-	-	-
PSECTROCLADIUS SP	-	-	-	-	-	-	-	-	19	149
RHEOTANYTARSUS SP	-	-	-	-	-	-	-	-	-	1333
ROBACKIA D	-	-	-	-	-	-	19	-	-	-
TANYPUS STELLATUS	-	-	-	-	-	-	-	-	-	-
TANYTARSUS SP	-	-	-	-	-	-	-	-	-	-

TABLE J-6e (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	15-F	15-M	15-B	16-F	16-M	16-B	17-F	17-M	18-F	18-M
XENOCHIRONOMUS SP	-	-	-	-	-	-	-	-	-	-
UNDESCRIBED CHIRONOMIDAE A	-	-	-	-	-	-	-	-	-	-
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	19	-	-	-	-	-
BAETIS SP	-	-	-	-	-	-	-	55	-	-
TRICORYTHODES ALBILINEATUS	-	-	-	19	-	-	-	-	-	841
CAMPELOMA SP	-	-	-	-	-	-	-	-	-	-
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	-	-	56	93	-	-
CHAOBORUS SP	56	6447	430	-	-	-	-	-	168	-
POTAMYIA FLAVA	-	-	-	-	-	-	-	-	19	11991
CORBICULA MANILENSIS	766	93	280	467	542	243	1152	602	7178	6019
CYRNELLUS SP	-	17	-	-	-	-	-	-	-	-
DINEUTUS SP	-	-	-	-	-	-	-	-	-	19
DUGESIA SP	-	-	-	-	-	-	-	-	-	-
FERRISSIA SP	-	-	-	-	-	-	-	-	19	-
FOSSARIA SP	-	-	-	-	-	-	-	-	19	-
GOMPHUS SP	-	-	-	-	-	-	-	-	-	-
HELISOMA SP	-	-	-	-	-	-	-	-	-	-
HEXAGENIA SP	-	-	-	37	-	-	-	19	-	-
HIRUDINEA	-	-	-	-	-	-	-	-	56	56
HYALELLA AZTECA	-	-	-	19	-	1252	-	-	-	-
LUMBRICULIDA	-	-	-	-	-	-	19	-	-	-
NAIDIDAE	-	-	-	-	-	37	131	-	6318	3252
NAPPUS SP	-	-	-	-	-	-	19	-	-	75
NEMATODA	-	-	-	-	-	56	19	-	-	-
OLIGOCHAETA FAMILY A	-	-	-	-	-	-	73	-	-	-
PALAEMONETES PALUDOSUS	-	-	-	-	-	-	-	-	-	-
PHYSA SP	-	-	-	-	19	-	-	-	-	-
TUBIFICIDAE	206	-	523	112	37	19	224	19	1215	-
TURBELLARIA	-	-	-	-	-	355	19	-	467	9991
TURBELLARIA B	-	-	-	-	-	-	393	-	-	19
UNIDENTIFIED LEPTOCERIDAE	-	-	-	-	-	-	-	-	-	-
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	-	-	-	-	-	-	-
UNIONIDA	-	-	-	-	-	-	-	-	-	-
TOTAL NUMBER OF ORGANISMS	1140	6729	1551	602	673	2197	2283	991	15685	46935
NUMBER OF TAXA	6	5	4	7	5	10	14	9	16	16

TABLE J-6f

LAKE SEMINOLE WD MANAGEMENT STUDY - BENTHIC MACROINVERTEBRATES (ORGANISMS/SQ M)

CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 5

(September 25-27, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	18-W	19-E	19-M	19-W	******	******	******	******	******	******
CHIRONOMIDAE										
ABLABESMYIA CINCTIPES	-	-	-	-	********	********	********	********	********	********
ABLABESMYIA MALLOCHI	-	-	-	-	********	********	********	********	********	********
ABLABESMYIA PARAJANTA	19	-	-	37	********	********	********	********	********	********
CHERNOVSKIIA ORBICUS	-	-	-	-	********	********	********	********	********	********
CHIRONOMUS SP	-	-	-	-	********	********	********	********	********	********
CLADOTANYTARSUS SP	-	-	-	-	********	********	********	********	********	********
COELOTANYPUS CONCINNUS	-	-	-	-	********	********	********	********	********	********
COELOTANYPUS TRICOLOR	-	-	-	-	********	********	********	********	********	********
CRICOTOPUS SP	-	-	-	-	********	********	********	********	********	********
CRYPTOCHIRONOMUS CF ROLLI	-	-	-	-	********	********	********	********	********	********
CRYPTOCHIRONOMUS FULVUS	-	-	-	-	********	********	********	********	********	********
DICROTENDIPES FUMIDUS	-	-	-	-	********	********	********	********	********	********
DICROTENDIPES MODESTUS	-	-	-	-	********	********	********	********	********	********
DICROTENDIPES NEOMODESTUS	-	-	-	-	********	********	********	********	********	********
DICROTENDIPES NERVOSUS	-	-	-	-	********	********	********	********	********	********
EINFELDIA NATCHITOCHEA	-	-	-	-	********	********	********	********	********	********
EPOICOCLADIUS SP	-	-	-	-	********	********	********	********	********	********
GLYPTOTENDIPES SP	-	-	-	-	********	********	********	********	********	********
LABRUNDINIA VIRESCENS	-	-	-	-	********	********	********	********	********	********
LARSIA SP	-	-	-	-	********	********	********	********	********	********
MICROCHIRONOMUS SP	-	-	-	-	********	********	********	********	********	********
MICROPSECTRA SP	-	-	-	-	********	********	********	********	********	********
PARACHIRONOMUS HIRTALATUS	-	-	-	-	********	********	********	********	********	********
PARACHIRONOMUS PECTINATELLAE	-	-	-	-	********	********	********	********	********	********
PARATENDIPES [illegible] NSP (A)	-	-	-	-	********	********	********	********	********	********
PARATENDIPES SP	-	-	-	-	********	********	********	********	********	********
POLYPEDILUM [illegible] CONVICTUM	542	111	467	1738	********	********	********	********	********	********
POLYPEDILUM FALLAX	-	-	-	-	********	********	********	********	********	********
POLYPEDILUM HALTERALE	-	-	-	-	********	********	********	********	********	********
PROCLADIUS SP	-	-	-	-	********	********	********	********	********	********
PSECTROCLADIUS SP	37	-	-	617	********	********	********	********	********	********
RHEOTANYTARSUS SP	19	56	243	496	********	********	********	********	********	********
ROBACKIA SP	-	-	-	-	********	********	********	********	********	********
TANYPUS STELLATUS	-	-	-	-	********	********	********	********	********	********
TANYTARSUS SP	-	-	-	-	********	********	********	********	********	********

TABLE J-6f (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATIONS (ORGANISMS/SQ M)									
	18-W	19-E	19-M	19-W	******	******	******	******	******	******
[illegible] SP	-	-	-	-	******	******	******	******	******	******
UNIDENTIFIED CHIRONOMIDAE A	-	-	-	-	******	******	******	******	******	******
NON-CHIRONOMIDAE										
ACARI	-	-	-	-	******	******	******	******	******	******
BAETIS SP	-	-	-	-	******	******	******	******	******	******
TRICORYTHODES ALBILINEATUS	374	19	19	93	******	******	******	******	******	******
CAMELOBAETIDIUS SP	-	-	-	19	******	******	******	******	******	******
CERATOPOGONIDAE (NO LARVAL KEY)	-	-	-	-	******	******	******	******	******	******
CHAOBORUS SP	19	19	-	-	******	******	******	******	******	******
POTAMYIA FLAVA	262	75	206	5271	******	******	******	******	******	******
CORBICULA MANILENSIS	-	8941	10692	2904	******	******	******	******	******	******
CYRNELLUS SP	-	-	-	-	******	******	******	******	******	******
DINEUTUS SP	-	-	-	-	******	******	******	******	******	******
DUGESIA SP	-	-	-	-	******	******	******	******	******	******
FERRISSIA SP	-	-	-	56	******	******	******	******	******	******
FOSSARIA SP	-	-	-	-	******	******	******	******	******	******
GOMPHUS SP	-	-	-	-	******	******	******	******	******	******
HELISOMA SP	-	-	-	-	******	******	******	******	******	******
HEXAGENIA SP	-	-	-	-	******	******	******	******	******	******
HIRUDINEA	19	-	-	-	******	******	******	******	******	******
HYALELLA AZTECA	-	-	-	-	******	******	******	******	******	******
LEPTOCERIDAE	-	-	-	-	******	******	******	******	******	******
NAIDIDAE	355	56	37	37	******	******	******	******	******	******
N[illegible] SP	37	-	-	-	******	******	******	******	******	******
NEMATODA	-	-	-	-	******	******	******	******	******	******
OLIGOCHAETA FAMILY A	-	-	-	-	******	******	******	******	******	******
PALAEMONETES PALUDOSUS	-	-	-	-	******	******	******	******	******	******
PHYSA SP	-	-	-	-	******	******	******	******	******	******
TUBIFICIDAE	-	19	-	-	******	******	******	******	******	******
TURBELLARIA	5140	37	19	2860	******	******	******	******	******	******
TURBELLARIA B	262	37	112	-	******	******	******	******	******	******
UNIDENTIFIED LEPTOCERIDAE	-	-	-	-	******	******	******	******	******	******
UNIDENTIFIED ZYGOPTERA (ODONATA)	-	-	-	19	******	******	******	******	******	******
UNIONIDAE	-	-	-	-	******	******	******	******	******	******
TOTAL NUMBER OF ORGANISMS	7085	9440	11795	14037	******	******	******	******	******	******
NUMBER OF TAXA	12	10	8	12	******	******	******	******	******	******

TABLE J-7

L SEMINOLE WQ MANAGEMENT STUDY - HESTER DENDY MACROINVERTEBRATES (ORGANISMS/SQ M)

PLACED CYCLE 1 (April 17-21, 1978)
RETRIEVED CYCLE 2 (June 5-7, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M) 7	12	13	15	18	19	******	******	******	******
CHIRONOMIDAE										
ABLABESMYIA MALLOCHI	24	-	16	32	-	-	*******	*******	*******	*******
ABLABESMYIA PARAJANTA	87	-	-	40	-	-	*******	*******	*******	*******
CLADOTANYTARSUS SP	-	8	-	-	-	-	*******	*******	*******	*******
CONCHAPELOPIA SP	16	-	-	-	-	-	*******	*******	*******	*******
CORYNONEURA SP	-	-	-	-	-	8	*******	*******	*******	*******
CRICOTOPUS SP	500	-	468	103	79	151	*******	*******	*******	*******
DICROTENDIPES NEOMODESTUS	-	-	8	32	-	-	*******	*******	*******	*******
DICROTENDIPES NERVOSUS	-	-	-	-	-	24	*******	*******	*******	*******
GLYPTOTENDIPES SP	341	254	3071	802	175	-	*******	*******	*******	*******
MICROPSECTRA SP	8	-	-	56	-	8	*******	*******	*******	*******
PHAENOPSECTRA SP	16	-	-	-	-	-	*******	*******	*******	*******
POLYPEDILUM NEAR CONVICTUM	-	-	8	32	595	79	*******	*******	*******	*******
POLYPEDILUM FALLAX	-	-	-	-	8	-	*******	*******	*******	*******
POLYPEDILUM HALTERALE	-	-	-	8	-	-	*******	*******	*******	*******
POLYPEDILUM NEAR ILLINOENSE	-	-	-	-	-	159	*******	*******	*******	*******
PSECTROCLADIUS SP	87	8	182	95	24	198	*******	*******	*******	*******
PSEUDOCHIRONOMUS SP	-	-	-	8	-	-	*******	*******	*******	*******
RHEOCRICOTOPUS ROBACKI	-	-	-	-	-	8	*******	*******	*******	*******
RHEOTANYTARSUS SP	-	103	-	32	24	8	*******	*******	*******	*******
STENOCHIRONOMUS SP	16	-	24	246	135	-	*******	*******	*******	*******
TANYTARSUS SP	8	-	-	-	-	-	*******	*******	*******	*******
"TENDIPEDINI SP A" ROBACK 1953	-	-	8	40	-	-	*******	*******	*******	*******
THIENEMANNIELLA SP	8	16	71	8	-	16	*******	*******	*******	*******

TABLE J-7 (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M) 7	12	13	15	18	19	******	******	******	******
NON-CHIRONOMIDAE										
ANCYRONYX SP	63	-	-	-	-	-	*******	*******	*******	*******
ARGIA SP	32	-	16	-	-	-	*******	*******	*******	*******
TRICORYTHODES ALBILINEATUS	373	8	24	8	214	8	*******	*******	*******	*******
POTAMYIA FLAVA	-	-	-	-	587	48	*******	*******	*******	*******
CLOEON SP	16	-	-	-	-	8	*******	*******	*******	*******
EMPIDIDAE (NO LARVAL KEY)	32	-	-	-	8	-	*******	*******	*******	*******
HYALELLA AZTECA	24	190	270	190	-	-	*******	*******	*******	*******
NAIDIDAE	556	40	643	24	286	8	*******	*******	*******	*******
NEMATODA	-	-	-	-	8	-	*******	*******	*******	*******
NEURECLIPSIS SP	79	16	198	635	484	16	*******	*******	*******	*******
SIMULIUM SP	-	-	-	-	8	-	*******	*******	*******	*******
STENONEMA SP	8	-	16	198	8	-	*******	*******	*******	*******
TURBELLARIA	-	24	-	-	-	-	*******	*******	*******	*******
TOTAL NUMBER OF ORGANISMS	2294	667	5023	2589	2643	747	******	******	******	******
NUMBER OF TAXA	20	10	15	19	15	15	******	******	******	******

TABLE J-8

L SEMINOLE WQ MANAGEMENT STUDY - HESTER DENDY MACROINVERTEBRATES (ORGANISMS/SQ M)

PLACED CYCLE 3 (July 17-20, 1978)
RETRIEVED CYCLE 4 (August 14-17, 1978)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M) 14	16	19	******	******	******	******	******	******	******
CHIRONOMIDAE										
ABLABESMYIA MALLOCHI	79	-	-	********	********	********	********	********	********	********
ABLABESMYIA PARAJANTA	79	-	-	********	********	********	********	********	********	********
CORYNONEURA SP	-	24	-	********	********	********	********	********	********	********
CRICOTOPUS SP	8	-	8	********	********	********	********	********	********	********
DICROTENDIPES NEOMODESTUS	222	16	56	********	********	********	********	********	********	********
DICROTENDIPES NERVOSUS	540	8	-	********	********	********	********	********	********	********
MICROPSECTRA SP	421	-	-	********	********	********	********	********	********	********
PENTANEURA SP	32	-	-	********	********	********	********	********	********	********
PHAENOPSECTRA SP	119	-	-	********	********	********	********	********	********	********
POLYPEDILUM NEAR CONVICTUM	-	8	2484	********	********	********	********	********	********	********
POLYPEDILUM FALLAX	70	-	-	********	********	********	********	********	********	********
POLYPEDILUM HALTERALE	48	5	-	********	********	********	********	********	********	********
POLYPEDILUM NEAR ILLINOENSE	8	-	587	********	********	********	********	********	********	********
PSECTROCLADIUS SP	-	-	8	********	********	********	********	********	********	********
RHEOTANYTARSUS SP	-	-	476	********	********	********	********	********	********	********
THIENEMANNIELLA SP	-	5	-	********	********	********	********	********	********	********
TRIBELOS SP	-	-	16	********	********	********	********	********	********	********

TABLE J-8 (cont.)

TAXONOMIC CLASSIFICATION	NUMBER OF ORGANISMS AT STATION: (ORGANISMS/SQ M)									
	14	16	19	******	******	******	******	******	******	******
NON-CHIRONOMIDAE										
ARGIA SP	16	8	-	********	********	********	********	********	********	********
ASELLUS SP	-	24	-	********	********	********	********	********	********	********
ASTACIDAE, IMMATURE	8	-	-	********	********	********	********	********	********	********
TRICORYTHODES ALBILINEATUS	-	111	825	********	********	********	********	********	********	********
CERATOPOGONIDAE (NO LARVAL KEY)	24	8	-	********	********	********	********	********	********	********
POTAMYIA FLAVA	-	-	12405	********	********	********	********	********	********	********
CLOEON SP	-	16	-	********	********	********	********	********	********	********
CYRNELLUS SP	151	24	-	********	********	********	********	********	********	********
GYRINUS SP	-	-	8	********	********	********	********	********	********	********
HELISOMA SP	-	8	-	********	********	********	********	********	********	********
HYALELLA AZTECA	190	1595	-	********	********	********	********	********	********	********
NAIDIDAE	476	-	-	********	********	********	********	********	********	********
NARPUS SP	-	49	-	********	********	********	********	********	********	********
OCHROTRICHIA SP	-	8	-	********	********	********	********	********	********	********
PHYSA SP	-	71	-	********	********	********	********	********	********	********
STENONEMA SP	8	159	-	********	********	********	********	********	********	********
TUBIFICIDAE	-	8	-	********	********	********	********	********	********	********
TURBELLARIA	-	3032	-	********	********	********	********	********	********	********
UNIDENTIFIED ANISOPTERA (ODONATA)	8	-	-	********	********	********	********	********	********	********
UNIDENTIFIED COLEOPTERA	8	-	-	********	********	********	********	********	********	********
TOTAL NUMBER OF ORGANISMS	2524	5192	16873	******	******	******	******	******	******	******
NUMBER OF TAXA	20	20	10	******	******	******	******	******	******	******

APPENDIX K

CORBICULA TISSUE ANALYSIS RESULTS

LIST OF TABLES

TABLE K-1a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

CORBICULA TISSUE ANALYSIS RESULTS

PARAMETER NAME (UNITS)	STATION 08 8/16/78	STATION 12 8/15/78	STATION 15 8/14/78	STATION 16 8/14/78
PHYSICAL & CHEMICAL DATA				
PHYSICAL DATA				
MOISTURE CONTENT (% TOTAL WT)	93.2	90.3	92.5	90.6
HEAVY METALS				
ARSENIC (MG AS/KG WET WT)	0.51	0.66	0.72	0.69
CADMIUM (MG CD/KG WET WT)	0.47	0.49	0.57	0.51
CHROMIUM (MG CR/KG WET WT)	0.67	0.69	4.60	1.60
LEAD (MG PB/KG WET WT)	6.50	4.50	4.70	5.50
MERCURY (MG HG/KG WET WT)	0.078	0.094	0.110	0.130
SELENIUM (MG SE/KG WET WT)	0.17	0.15	0.23	0.18
ZINC (MG ZN/KG WET WT)	14.00	17.00	14.00	10.00
CHLORINATED HYDROCARBONS				
ALDRIN (UG/KG WET WT)	--	< 0.2	--	--
BHC-ALPHA ISOMER (UG/KG WET WT)	--	< 0.2	--	--
BHC-BETA ISOMER (UG/KG WET WT)	--	< 0.2	--	--
BHC-GAMMA ISOMER (UG/KG WET WT)	--	< 0.1	--	--
CHLORDANE (UG/KG WET WT)	--	23.0	--	--
P,P' DDD (UG/KG WET WT)	--	< 0.5	--	--
P,P' DDE (UG/KG WET WT)	--	< 0.5	--	--
O,P' DDT (UG/KG WET WT)	--	< 0.5	--	--
P,P' DDT (UG/KG WET WT)	--	< 0.5	--	--
DIELDRIN (UG/KG WET WT)	--	< 0.5	--	--
ENDOSULFAN SULFATE (UG/KG WET WT)	--	< 3.	--	--
HEPTACHLOR (UG/KG WET WT)	--	< 0.2	--	--
HEPTACHLOR EPOXIDE (UG/KG WET WT)	--	< 0.2	--	--
METHOXYCHLOR (UG/KG WET WT)	--	< 5.0	--	--
MIREX (UG/KG WET WT)	--	< 5.	--	--
PCB (UG/KG WET WT)	--	< 25.	--	--
PENTACHLOROPHENOL (UG/KG WET WT)	--	< 5.	--	--
TOXAPHENE (UG/KG WET WT)	--	< 5.	--	--

TABLE K-1b

PARAMETER NAME (UNITS)	STATION 19 8/16/78
PHYSICAL & CHEMICAL DATA	
PHYSICAL DATA	
MOISTURE CONTENT (% TOTAL WT)	91.2
HEAVY METALS	
ARSENIC (MG AS/KG WET WT)	0.43
CADMIUM (MG CD/KG WET WT)	0.42
CHROMIUM (MG CR/KG WET WT)	0.46
LEAD (MG PB/KG DRY WT)	4.40
MERCURY (MG HG/KG WET WT)	0.120
SELENIUM (MG SE/KG WET WT)	0.10
ZINC (MG ZN/KG WET WT)	11.00
CHLORINATED HYDROCARBONS	
ALDRIN (UG/KG WET WT)	< 0.2
BHC-ALPHA ISOMER (UG/KG WET WT)	< 0.2
BHC-BETA ISOMER (UG/KG WET WT)	< 0.2
BHC-GAMMA ISOMER (UG/KG WET WT)	< 0.1
CHLORDANE (UG/KG WET WT)	40.0
P,P' DDD (UG/KG WET WT)	< 0.5
P,P' DDE (UG/KG WET WT)	< 0.5
O,P' DDT (UG/KG WET WT)	< 0.5
P,P' DDT (UG/KG WET WT)	< 0.5
DIELDRIN (UG/KG WET WT)	< 0.5
ENDOSULFAN SULFATE (UG/KG WET WT)	10.
HEPTACHLOR (UG/KG WET WT)	< 0.2
HEPTACHLOR EPOXIDE (UG/KG WET WT)	< 0.2
METHOXYCHLOR (UG/KG WET WT)	< 5.0
MIREX (UG/KG WET WT)	< 5.
PCB (UG/KG WET WT)	< 25.
PENTACHLOROPHENOL (UG/KG WET WT)	< 5.
TOXAPHENE (UG/KG WET WT)	< 5.

APPENDIX L

SEDIMENT SAMPLING RESULTS

LIST OF TABLES

LIST OF FIGURES

TABLE L-1a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

SEDIMENT SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 02 8/17/78	STATION 03 8/17/78	STATION 04 8/17/78
PHYSICAL & CHEMICAL DATA				
PHYSICAL DATA				
LOSS ON IGNITION (MG/KG DRY WT)	2500	1600	3200	2400
MOISTURE CONTENT (% TOTAL DRY WT)	18.30	19.30	18.40	16.20
MISCELLANEOUS CHEMICAL DATA				
CARBON, ORGANIC (GM C/KG DRY WT)	0.544	0.530	1.690	0.797
NITROGEN, TOTAL KJELDAHL (MG N/KG)	34.	35.	52.	117.
OIL & GREASE (MG/KG DRY WT)	< 50.	< 50.	< 50.	< 50.
PHOSPHORUS, TOTAL (MG P/KG DRY WT)	8.77	25.50	19.20	46.20
HEAVY METALS				
ARSENIC (MG AS/KG DRY WT)	0.02	0.04	0.04	0.14
CADMIUM (MG CD/KG DRY WT)	<0.50	<0.50	<0.50	<0.50
CHROMIUM (MG CR/KG DRY WT)	2.75	2.79	2.39	<1.20
COPPER (MG CU/KG DRY WT)	<0.60	<0.60	<0.60	<0.60
IRON (MG FE/KG DRY WT)	1770.	1620.	1470.	1480.
LEAD (MG PB/KG DRY WT)	<0.50	<0.50	<0.50	<0.50
MANGANESE (MG MN/KG DRY WT)	118.0	84.4	51.7	67.4
MERCURY (MG HG/ DRY WT)	0.07	0.03	0.04	0.04
NICKEL (MG NI/KG DRY WT)	0.73	0.56	<0.40	<0.40
ZINC (MG ZN/KG DRY WT)	3.42	5.08	3.55	3.88
CHLORINATED HYDROCARBONS				
ALDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
AROCLOR 1242 (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
AROCLOR 1254 (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
AROCLOR 1260 (UG/KG DRY WT)	103.0	213.0	419.0	93.0
BHC-ALPHA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
BHC-BETA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
BHC-GAMMA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
CHLORDANE (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
2,4 D (UG/KG DRY WT)	22.	< 2.	569.	< 2.
P,P' DDD (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
P,P' DDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
O,P' DDT (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
P,P' DDT (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
DIELDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
ENDOTHOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
ENDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
ENDRIN ALDEHYDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
GLYPHOSPHATE (UG/KG DRY WT)	< 1.0	< 1.0	< 1.0	< 1.0
HEPTACHLOR (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
HEPTACHLOR EPOXIDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
METHOXYCHLOR (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
MIREX (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
PENTACHLOROPHENOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
TOXAPHENE (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5

TABLE L-1b

PARAMETER NAME (UNITS)	STATION 05 8/17/78	STATION 06 8/17/78	STATION 07 8/16/78	STATION 08 8/16/78
PHYSICAL & CHEMICAL DATA				
PHYSICAL DATA				
LOSS ON IGNITION (MG/KG DRY WT)	1500	1500	9900	12800
MOISTURE CONTENT (% TOTAL DRY WT)	17.50	17.70	14.40	17.00
MISCELLANEOUS CHEMICAL DATA				
CARBON, ORGANIC (GM C/KG DRY WT)	0.689	0.592	1.833	2.557
NITROGEN, TOTAL KJELDAHL (MG N/KG)	60.	51.	52.	287.
OIL & GREASE (MG/KG DRY WT)	< 50.	< 50.	53.	50.
PHOSPHORUS, TOTAL (MG P/KG DRY WT)	15.70	16.90	40.50	86.50
HEAVY METALS				
ARSENIC (MG AS/KG DRY WT)	0.04	0.12	0.02	0.02
CADMIUM (MG CD/KG DRY WT)	<0.50	<0.50	<0.50	<0.50
CHROMIUM (MG CR/KG DRY WT)	<1.20	2.42	5.02	<1.20
COPPER (MG CU/KG DRY WT)	<0.60	<0.60	3.10	12.00
IRON (MG FE/KG DRY WT)	1470.	2060.	5890.	2970.
LEAD (MG PB/KG DRY WT)	<0.50	<0.50	<0.50	<0.50
MANGANESE (MG MN/KG DRY WT)	55.5	141.0	168.0	741.0
MERCURY (MG HG/DRY WT)	0.04	0.06	0.06	0.09
NICKEL (MG NI/KG DRY WT)	<0.40	<0.40	2.11	9.34
ZINC (MG ZN/KG DRY WT)	4.24	4.86	11.20	18.70
CHLORINATED HYDROCARBONS				
ALDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
AROCLOR 1242 (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
AROCLOR 1254 (UG/KG DRY WT)	< 0.5	< 0.5	38.7	50.0
AROCLOR 1260 (UG/KG DRY WT)	56.8	219.0	< 0.5	136.0
BHC-ALPHA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
BHC-BETA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
BHC-GAMMA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
CHLORDANE (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
2,4 D (UG/KG DRY WT)	< 2.	113.	< 2.	< 2.
P,P' DDD (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
P,P' DDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
O,P' DDT (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
P,P' DDT (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
DIELDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
ENDOTHOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
ENDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
ENDRIN ALDEHYDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
GLYPHOSPHATE (UG/KG DRY WT)	< 1.0	< 1.0	< 1.0	< 1.0
HEPTACHLOR (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
HEPTACHLOR EPOXIDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
METHOXYCHLOR (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2	< 0.2
MIREX (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1	< 0.1
PENTACHLOROPHENOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
TOXAPHENE (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5

TABLE L-1c

PARAMETER NAME (UNITS)	STATION 09 8/16/78	STATION 10 8/15/78	STATION 11 8/16/78	STATION 12 8/15/78
PHYSICAL & CHEMICAL DATA				
PHYSICAL DATA				
LOSS ON IGNITION (MG/KG DRY WT)	51000	5300	91200	27300
MOISTURE CONTENT (% TOTAL DRY WT)	43.50	22.70	51.60	32.50
MISCELLANEOUS CHEMICAL DATA				
CARBON, ORGANIC (GM C/KG DRY WT)	15.980	1.475	34.270	34.990
NITROGEN, TOTAL KJELDAHL (MG N/KG)	942.	54.	1530.	954.
OIL & GREASE (MG/KG DRY WT)	2340.	1890.	650.	1520.
PHOSPHORUS, TOTAL (MG P/KG DRY WT)	50.60	41.20	172.00	44.70
HEAVY METALS				
ARSENIC (MG AS/KG DRY WT)	0.06	<0.01	0.04	0.03
CADMIUM (MG CD/KG DRY WT)	<0.70	<0.50	<0.80	<0.60
CHROMIUM (MG CR/KG DRY WT)	7.61	3.85	28.80	19.30
COPPER (MG CU/KG DRY WT)	4.42	1.94	7.23	3.56
IRON (MG FE/KG DRY WT)	22800.	2970.	9900.	17000.
LEAD (MG PB/KG DRY WT)	<0.50	<0.50	<0.50	<0.50
MANGANESE (MG MN/KG DRY WT)	310.0	176.0	452.0	204.0
MERCURY (MG HG/ DRY WT)	0.09	<0.03	0.12	0.12
NICKEL (MG NI/KG DRY WT)	2.48	1.26	3.10	<0.40
ZINC (MG ZN/KG DRY WT)	15.60	7.20	20.70	13.90
CHLORINATED HYDROCARBONS				
ALDRIN (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
AROCLOR 1242 (UG/KG DRY WT)	< 1.0	< 0.5	< 1.0	< 1.0
AROCLOR 1254 (UG/KG DRY WT)	< 1.0	77.6	< 1.0	77.9
AROCLOR 1260 (UG/KG DRY WT)	365.0	41.2	48.9	< 1.0
BHC-ALPHA ISOMER (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
BHC-BETA ISOMER (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
BHC-GAMMA ISOMER (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
CHLORDANE (UG/KG DRY WT)	< 0.8	< 0.5	< 1.0	< 1.0
2,4 D (UG/KG DRY WT)	275.	< 2.	< 4.	< 4.
P,P' DDD (UG/KG DRY WT)	< 0.4	< 0.2	< 0.4	< 0.4
P,P' DDE (UG/KG DRY WT)	< 0.2	< 0.5	< 0.2	< 1.0
O,P' DDT (UG/KG DRY WT)	< 0.4	< 0.2	< 0.4	< 0.4
P,P' DDT (UG/KG DRY WT)	< 0.4	< 0.2	< 0.4	< 0.4
DIFLORIN (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
ENDOTHOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
ENDRIN (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
ENDRIN ALDEHYDE (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
GLYPHOSPHATE (UG/KG DRY WT)	< 1.0	< 1.0	< 1.0	< 1.0
HEPTACHLOR (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
HEPTACHLOR EPOXIDE (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
METHOXYCHLOR (UG/KG DRY WT)	< 0.4	< 0.2	< 0.4	< 0.4
MIREX (UG/KG DRY WT)	< 0.2	< 0.1	< 0.2	< 0.2
PENTACHLOROPHENOL (UG/KG DRY WT)	< 1.0	< 0.5	< 1.0	< 1.0
TOXAPHENE (UG/KG DRY WT)	< 1.0	< 0.5	< 1.0	< 1.0

TABLE L-1d

PARAMETER NAME (UNITS)	STATION 13 8/14/78	STATION 14 8/15/78	STATION 15 8/14/78	STATION 16 8/14/78
PHYSICAL & CHEMICAL DATA				
PHYSICAL DATA				
LOSS ON IGNITION (MG/KG DRY WT)	38800	127000	91900	13000
MOISTURE CONTENT (% TOTAL DRY WT)	27.90	69.00	62.70	26.60
MISCELLANEOUS CHEMICAL DATA				
CARBON, ORGANIC (GM C/KG DRY WT)	29.850	88.880	53.860	13.460
NITROGEN, TOTAL KJELDAHL (MG N/KG)	359.	4110.	1390.	248.
OIL & GREASE (MG/KG DRY WT)	1700.	4310.	2090.	426.
PHOSPHORUS, TOTAL (MG P/KG DRY WT)	317.00	195.00	80.60	85.50
HEAVY METALS				
ARSENIC (MG AS/KG DRY WT)	0.04	0.04	0.10	0.05
CADMIUM (MG CD/KG DRY WT)	<0.60	<1.10	<1.30	<0.50
CHROMIUM (MG CR/KG DRY WT)	<1.40	65.30	6.70	<1.40
COPPER (MG CU/KG DRY WT)	7.00	40.50	3.90	7.43
IRON (MG FE/KG DRY WT)	15100.	63700.	8190.	5520.
LEAD (MG PB/KG DRY WT)	10.80	57.90	<0.50	<0.50
MANGANESE (MG MN/KG DRY WT)	170.0	2600.0	371.0	190.0
MERCURY (MG HG/ DRY WT)	0.03	0.20	0.09	0.10
NICKEL (MG NI/KG DRY WT)	4.85	40.30	5.23	4.70
ZINC (MG ZN/KG DRY WT)	20.80	123.00	19.70	26.60
CHLORINATED HYDROCARBONS				
ALDRIN (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
AROCLOR 1242 (UG/KG DRY WT)	< 1.0	< 1.5	< 1.5	< 1.0
AROCLOR 1254 (UG/KG DRY WT)	< 1.0	753.0	< 1.5	135.0
AROCLOR 1260 (UG/KG DRY WT)	5.8	< 1.5	19.0	< 1.0
BHC-ALPHA ISOMER (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
BHC-BETA ISOMER (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
BHC-GAMMA ISOMER (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
CHLORDANE (UG/KG DRY WT)	< 1.0	< 1.5	< 1.5	< 1.0
2,4 D (UG/KG DRY WT)	< 4.	< 6.	< 6.	< 4.
P,P' DDD (UG/KG DRY WT)	< 0.4	< 0.6	< 0.6	< 0.4
P,P' DDE (UG/KG DRY WT)	< 0.2	< 1.5	< 0.3	< 0.2
O,P' DDT (UG/KG DRY WT)	< 0.4	< 0.6	< 0.6	< 0.4
P,P' DDT (UG/KG DRY WT)	< 0.4	< 0.6	< 0.6	< 0.4
DIFLORIN (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
ENDOTHOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5	< 0.5
ENDRIN (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
ENDRIN ALDEHYDE (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
GLYPHOSPHATE (UG/KG DRY WT)	< 1.0	< 1.0	< 1.0	< 1.0
HEPTACHLOR (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
HEPTACHLOR EPOXIDE (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
METHOXYCHLOR (UG/KG DRY WT)	< 0.4	< 0.6	< 0.6	< 0.4
MIREX (UG/KG DRY WT)	< 0.2	< 0.3	< 0.3	< 0.2
PENTACHLOROPHENOL (UG/KG DRY WT)	< 1.0	< 1.5	< 0.5	< 0.5
TOXAPHENE (UG/KG DRY WT)	< 1.0	< 1.5	< 1.5	< 1.0

TABLE L-1e

PARAMETER NAME (UNITS)	STATION 17 8/14/78	STATION 18 8/16/78	STATION 19 8/16/78
PHYSICAL DATA			
LOSS ON IGNITION (MG/KG DRY WT)	1700	15800	5400
MOISTURE CONTENT (% TOTAL DRY WT	16.50	13.90	19.10
MISCELLANEOUS CHEMICAL DATA			
CARBON, ORGANIC (GM C/KG DRY WT)	0.546	--	2.283
NITROGEN, TOTAL KJELDAHL (MG N/KG)	50.	407.	346.
OIL & GREASE (MG/KG DRY WT)	377.	110.	297.
PHOSPHORUS, TOTAL (MG P/KG DRY WT)	28.60	80.10	53.00
HEAVY METALS			
ARSENIC (MG AS/KG DRY WT)	0.03	--	0.03
CADMIUM (MG CD/KG DRY WT)	<0.50	<0.50	<0.50
CHROMIUM (MG CR/KG DRY WT)	10.80	<1.20	<1.20
COPPER (MG CU/KG DRY WT)	<0.60	2.38	1.85
IRON (MG FE/KG DRY WT)	1280.	2090.	2180.
LEAD (MG PB/KG DRY WT)	<0.50	<0.50	<0.50
MANGANESE (MG MN/KG DRY WT)	72.5	172.0	261.0
MERCURY (MG HG/KG DRY WT)	0.06	--	0.06
NICKEL (MG NI/KG DRY WT)	1.14	1.86	31.50
ZINC (MG ZN/KG DRY WT)	3.59	7.03	5.69
CHLORINATED HYDROCARBONS			
ALDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
AROCLOR 1242 (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5
AROCLOR 1254 (UG/KG DRY WT)	41.4	< 0.5	< 0.5
AROCLOR 1260 (UG/KG DRY WT)	< 0.5	147.0	196.0
BHC-ALPHA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
BHC-BETA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
BHC-GAMMA ISOMER (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
CHLORDANE (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5
2,4 D (UG/KG DRY WT)	< 2.	< 2.	< 2.
P,P' DDD (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2
P,P' DDE (UG/KG DRY WT)	< 0.5	< 0.1	< 0.1
O,P' DDT (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2
P,P' DDT (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2
DIELDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
ENDOTHOL (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5
ENDRIN (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
ENDRIN ALDEHYDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
GLYPHOSPHATE (UG/KG DRY WT)	< 1.0	< 1.0	< 1.0
HEPTACHLOR (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
HEPTACHLOR EPOXIDE (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
METHOXYCHLOR (UG/KG DRY WT)	< 0.2	< 0.2	< 0.2
MIREX (UG/KG DRY WT)	< 0.1	< 0.1	< 0.1
PENTACHLOROPHENOL (UG/KG DRY WT)	2.4	< 0.5	< 0.5
TOXAPHENE (UG/KG DRY WT)	< 0.5	< 0.5	< 0.5

TABLE L-2a

** LAKE SEMINOLE WATER QUALITY MANAGEMENT STUDY **
CORPS OF ENGINEERS (CONTRACT DACW01-78-C-0101) PHASE I, CYCLE 4

SEDIMENT SAMPLING RESULTS

PARAMETER NAME (UNITS)	STATION 01 8/17/78	STATION 02 8/17/78	STATION 03 8/17/78	STATION 04 8/17/78
MECHANICAL DATA				
SIEVE ANALYSIS				
BED MTL (% FINER THAN 38.1 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 25.4 MM)	100.0	100.0	95.3	100.0
BED MTL (% FINER THAN 19.1 MM)	96.0	96.4	88.7	100.0
BED MTL (% FINER THAN 9.5 MM)	88.2	92.5	85.0	99.6
BED MTL (% FINER THAN 2.0 MM)	76.20	75.30	74.10	73.30
BED MTL (% FINER THAN 0.42 MM)	22.00	30.70	27.60	67.30
BED MTL (% FINER THAN 0.074 MM)	0.83	8.05	0.30	19.60
HYDROMETER ANALYSIS				
EQUIVALENT FALL DIA (MICRONS)	37.	37.	37.	38.
% FINER THAN	0.61	1.20	0.30	2.00
EQUIVALENT FALL DIA (MICRONS)	23.	23.	23.	23.
% FINER THAN	0.61	1.20	0.30	1.60
EQUIVALENT FALL DIA (MICRONS)	13.4	13.0	13.0	13.4
% FINER THAN	0.31	1.20	0.00	1.60
EQUIVALENT FALL DIA (MICRONS)	9.5	9.5	9.5	9.5
% FINER THAN	0.31	0.90	0.00	1.60
EQUIVALENT FALL DIA (MICRONS)	6.7	6.7	6.7	6.7
% FINER THAN	0.31	0.90	0.00	1.20
EQUIVALENT FALL DIA (MICRONS)	3.4	3.4	3.4	3.3
% FINER THAN	0.00	0.90	0.00	1.20
EQUIVALENT FALL DIA (MICRONS)	1.40	1.40	1.40	1.40
% FINER THAN	0.00	0.90	0.00	1.20

TABLE L-2b

PARAMETER NAME (UNITS)	STATION 05 8/17/78	STATION 06 8/17/78	STATION 07 8/16/78	STATION 08 8/16/78
MECHANICAL DATA				
SIEVE ANALYSIS				
BED MTL (% FINER THAN 38.1 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 25.4 MM)	97.5	100.0	100.0	100.0
BED MTL (% FINER THAN 19.1 MM)	95.2	100.0	100.0	100.0
BED MTL (% FINER THAN 9.5 MM)	85.8	100.0	100.0	100.0
BED MTL (% FINER THAN 2.0 MM)	81.50	97.30	97.50	99.60
BED MTL (% FINER THAN 0.42 MM)	37.20	40.00	73.50	47.30
BED MTL (% FINER THAN 0.074 MM)	3.00	5.70	16.20	7.00
HYDROMETER ANALYSIS				
EQUIVALENT FALL DIA (MICRONS)	37.	37.	35.	35.
% FINER THAN	1.63	1.95	7.75	6.72
EQUIVALENT FALL DIA (MICRONS)	23.	23.	22.	22.
% FINER THAN	1.63	1.56	7.00	6.30
EQUIVALENT FALL DIA (MICRONS)	13.4	13.4	13.0	13.0
% FINER THAN	1.30	1.56	5.80	5.50
EQUIVALENT FALL DIA (MICRONS)	9.5	9.5	9.0	9.1
% FINER THAN	1.30	1.56	5.40	4.75
EQUIVALENT FALL DIA (MICRONS)	6.7	6.7	6.4	6.5
% FINER THAN	1.30	1.56	4.60	4.75
EQUIVALENT FALL DIA (MICRONS)	3.4	3.4	3.2	3.3
% FINER THAN	1.30	1.17	3.90	3.16
EQUIVALENT FALL DIA (MICRONS)	1.40	1.40	1.30	1.30
% FINER THAN	1.30	1.17	3.10	1.58

TABLE L-2c

PARAMETER NAME (UNITS)	STATION 09 8/16/78	STATION 10 8/15/78	STATION 11 8/16/78	STATION 12 8/15/78
MECHANICAL DATA				
SIEVE ANALYSIS				
BED MTL (% FINER THAN 38.1 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 25.4 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 19.1 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 9.5 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 2.0 MM)	100.00	100.00	100.00	98.70
BED MTL (% FINER THAN 0.42 MM)	92.30	99.60	71.20	70.10
BED MTL (% FINER THAN 0.074 MM)	41.80	14.80	66.50	10.50
HYDROMETER ANALYSIS				
EQUIVALENT FALL DIA (MICRONS)	29.	36.	27.	35.
% FINER THAN	33.30	4.00	45.20	7.90
EQUIVALENT FALL DIA (MICRONS)	18.	23.	17.	22.
% FINER THAN	32.50	4.00	43.80	6.30
EQUIVALENT FALL DIA (MICRONS)	11.0	13.0	10.0	12.0
% FINER THAN	26.20	3.20	40.90	4.70
EQUIVALENT FALL DIA (MICRONS)	7.9	9.3	7.0	9.2
% FINER THAN	25.80	2.80	36.90	3.90
EQUIVALENT FALL DIA (MICRONS)	5.8	6.6	5.4	6.5
% FINER THAN	20.60	2.93	32.10	2.75
EQUIVALENT FALL DIA (MICRONS)	3.1	3.3	2.8	3.4
% FINER THAN	9.50	2.00	27.00	2.20
EQUIVALENT FALL DIA (MICRONS)	1.30	1.35	1.20	1.30
% FINER THAN	4.80	1.60	19.00	1.60

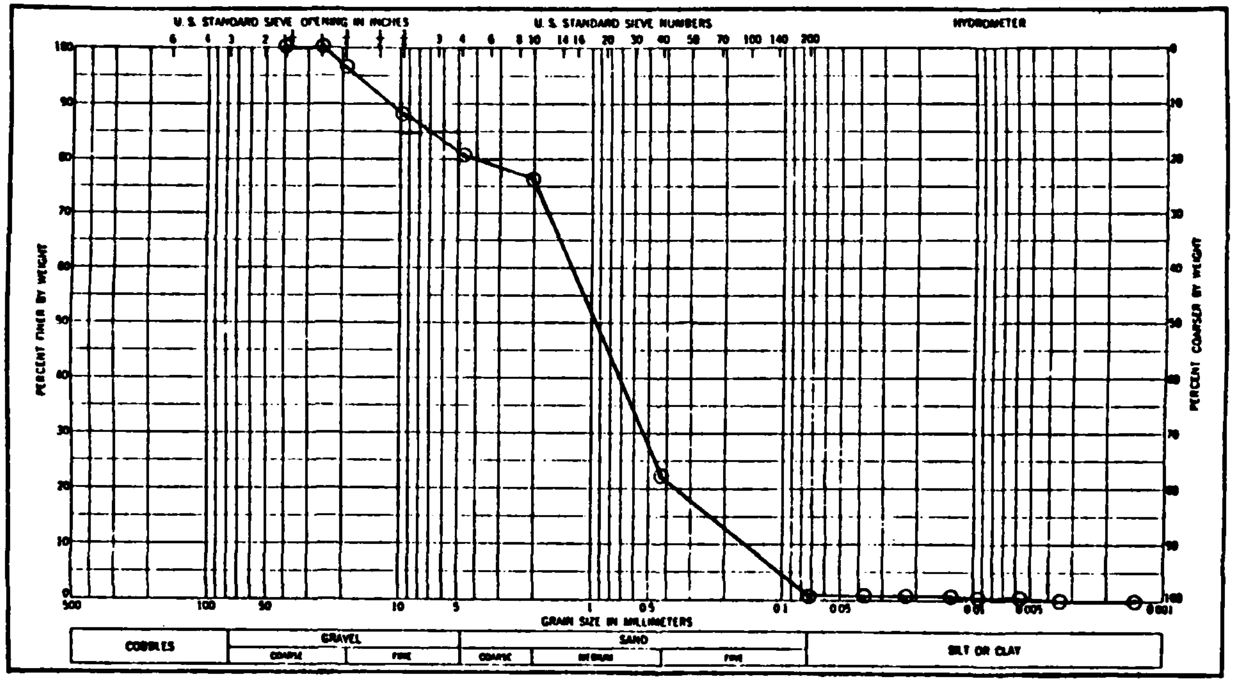
TABLE L-2d

PARAMETER NAME (UNITS)	STATION 13 8/14/78	STATION 14 8/15/78	STATION 15 8/14/78	STATION 16 8/14/78
MECHANICAL DATA				
SIEVE ANALYSIS				
BED MTL (% FINER THAN 38.1 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 25.4 MM)	100.0	100.0	100.0	100.0
BED MTL (% FINER THAN 19.1 MM)	100.0	100.0	100.0	99.9
BED MTL (% FINER THAN 9.5 MM)	99.9	100.0	100.0	93.0
BED MTL (% FINER THAN 2.0 MM)	97.10	100.00	100.00	91.30
BED MTL (% FINER THAN 0.42 MM)	70.60	43.40	81.60	22.50
BED MTL (% FINER THAN 0.074 MM)	19.40	25.00	25.00	12.10
HYDROMETER ANALYSIS				
EQUIVALENT FALL DIA (MICRONS)	34.	31.	32.	34.
% FINER THAN	17.70	23.80	20.30	13.20
EQUIVALENT FALL DIA (MICRONS)	21.	20.	20.	22.
% FINER THAN	10.50	22.20	19.90	10.20
EQUIVALENT FALL DIA (MICRONS)	12.5	12.0	12.0	13.0
% FINER THAN	10.10	19.30	17.50	9.40
EQUIVALENT FALL DIA (MICRONS)	8.9	8.6	8.5	9.0
% FINER THAN	10.10	15.90	17.10	7.25
EQUIVALENT FALL DIA (MICRONS)	6.2	6.1	6.1	6.4
% FINER THAN	9.30	14.30	14.70	6.50
EQUIVALENT FALL DIA (MICRONS)	3.2	3.1	3.1	3.2
% FINER THAN	6.20	11.90	12.70	4.35
EQUIVALENT FALL DIA (MICRONS)	1.30	1.30	1.30	1.30
% FINER THAN	3.10	7.90	7.50	2.20

TABLE L-2e

PARAMETER NAME (UNITS)	STATION 17 8/14/78	STATION 19 8/16/78	STATION 19 8/16/78
MECHANICAL DATA			
SIEVE ANALYSIS			
BED MTL (% FINER THAN 38.1 MM)	100.0	100.0	100.0
BED MTL (% FINER THAN 25.4 MM)	100.0	98.5	99.6
BED MTL (% FINER THAN 19.1 MM)	100.0	73.9	89.9
BED MTL (% FINER THAN 9.5 MM)	100.0	64.6	88.8
BED MTL (% FINER THAN 2.0 MM)	99.00	33.10	70.60
BED MTL (% FINER THAN 0.42 MM)	66.00	7.40	14.00
BED MTL (% FINER THAN 0.074 MM)	6.00	0.36	1.80
HYDROMETER ANALYSIS			
EQUIVALENT FALL DIA (MICRONS)	34.	37.	37.
% FINER THAN	2.39	0.24	1.13
EQUIVALENT FALL DIA (MICRONS)	23.	23.	23.
% FINER THAN	1.59	0.24	1.13
EQUIVALENT FALL DIA (MICRONS)	13.4	13.0	13.4
% FINER THAN	1.59	0.24	1.13
EQUIVALENT FALL DIA (MICRONS)	9.5	9.5	9.5
% FINER THAN	1.19	0.24	1.13
EQUIVALENT FALL DIA (MICRONS)	6.7	6.7	6.7
% FINER THAN	1.19	0.12	0.85
EQUIVALENT FALL DIA (MICRONS)	3.4	3.4	3.4
% FINER THAN	1.19	0.12	0.85
EQUIVALENT FALL DIA (MICRONS)	1.40	1.40	1.40
% FINER THAN	0.80	0.00	0.57

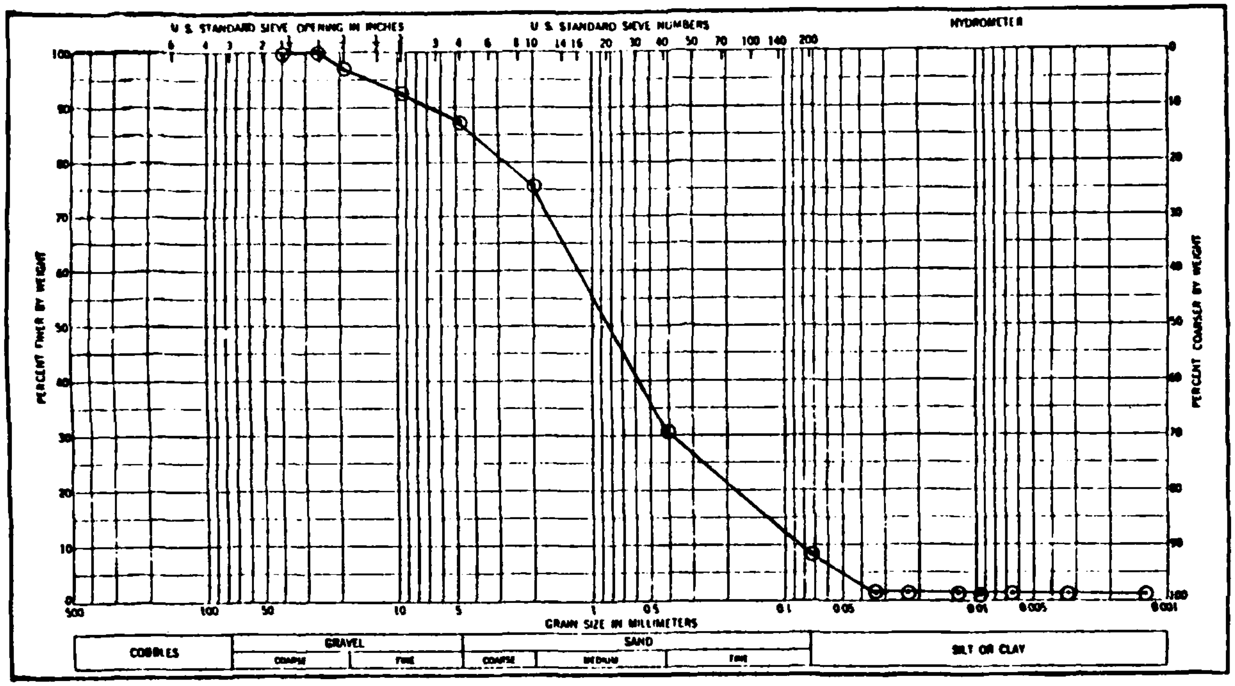
FIGURE L-1a. SEDIMENT GRADATION CURVE, STATION 1, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-Section (% from R-Bank 1k. upstream)	Depth (M)
20%	3.
40%	6.
60%	6.
80%	5.

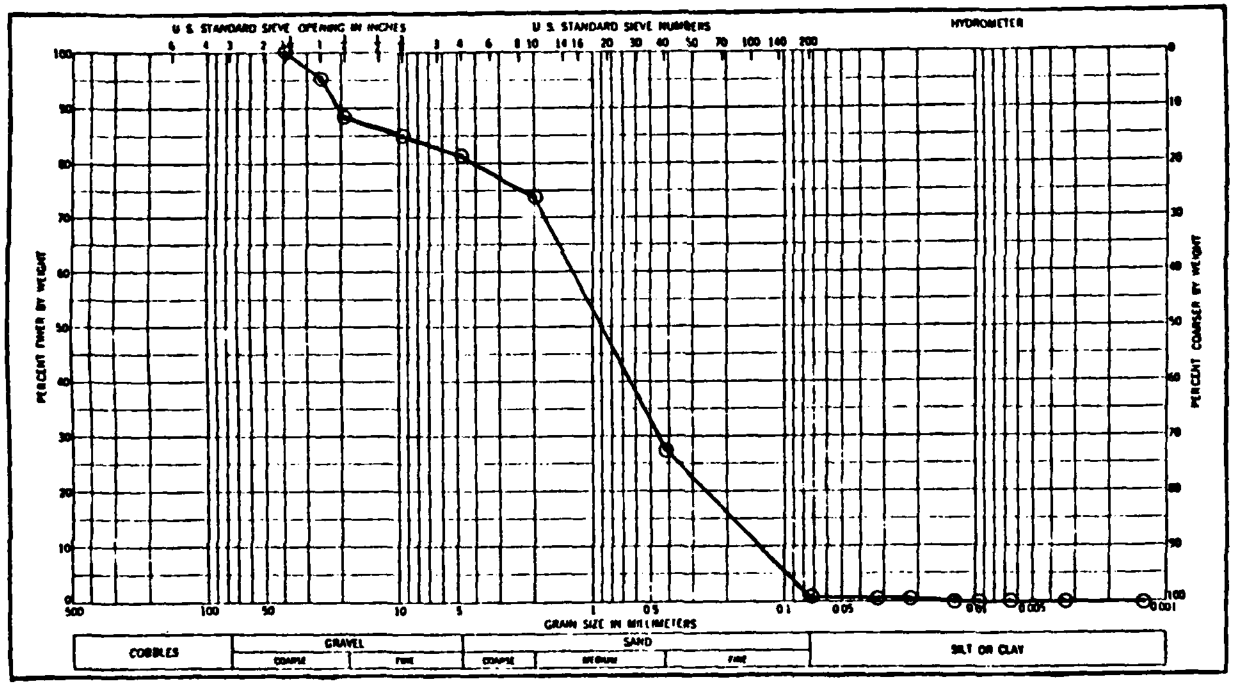
FIGURE L-1b. SEDIMENT GRADATION CURVE, STATION 2, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-Section (% from R-Bank lk. upstream)	Depth (M)
20%	5.
40%	6.
60%	6.
80%	5.

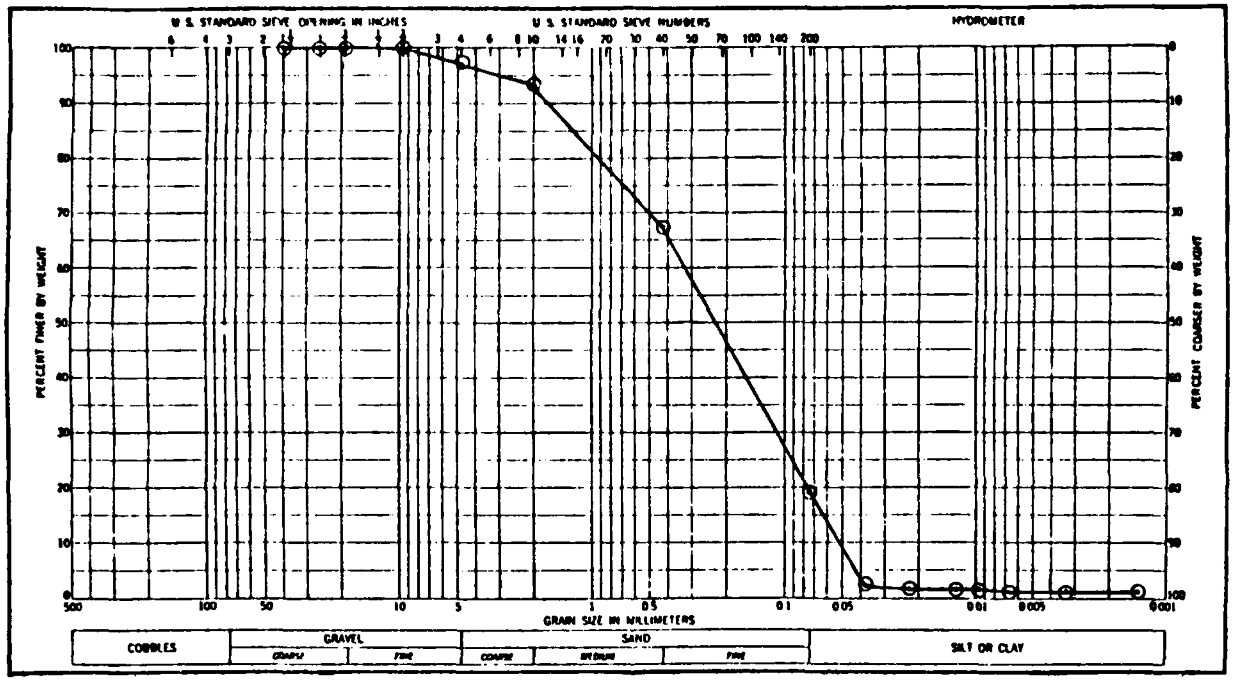
FIGURE L-1c. SEDIMENT GRADATION CURVE, STATION 3, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-Bank 1k. upstream)	Depth (M)
20%	6.
40%	6.
60%	6.
80%	5.

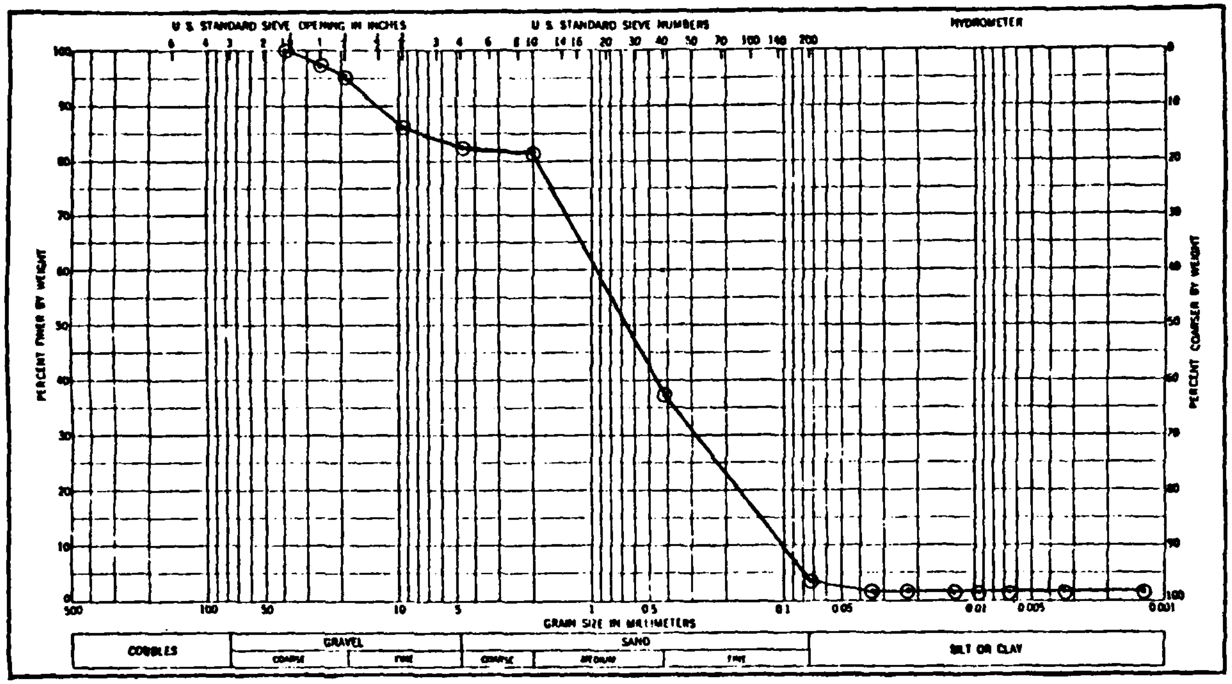
FIGURE L-1d. SEDIMENT GRADATION CURVE, STATION 4, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	5.
40%	5.
60%	5.
80%	5.

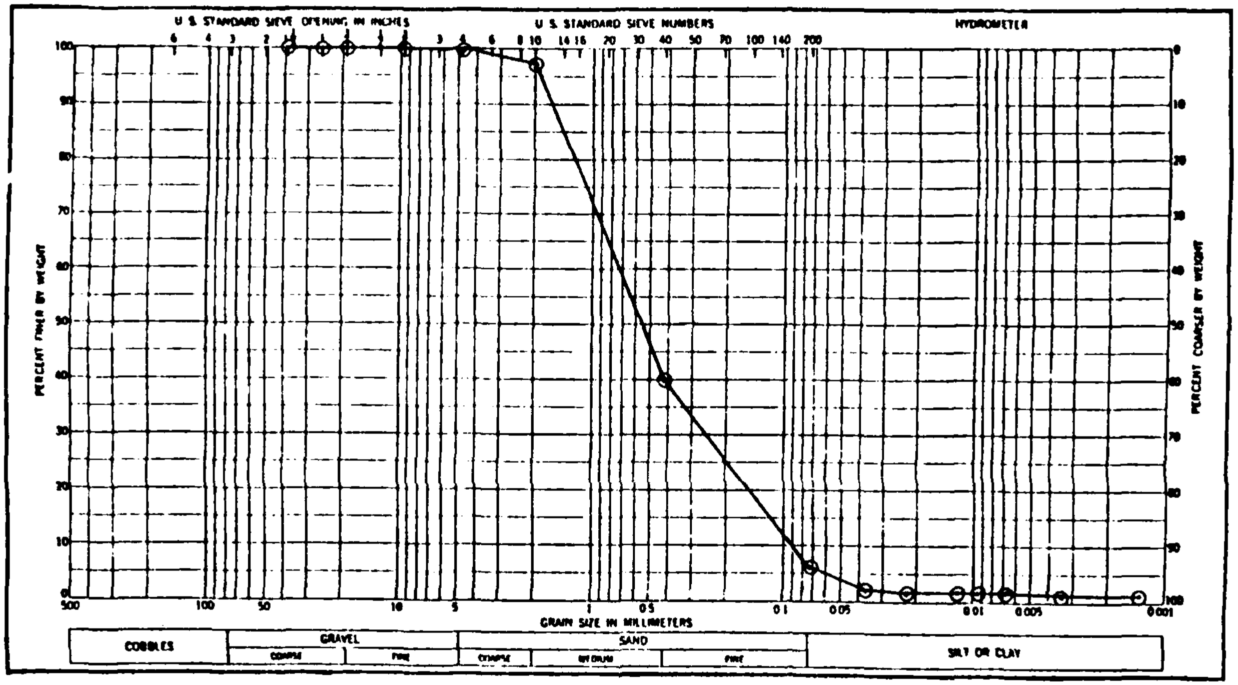
FIGURE L-1e. SEDIMENT GRADATION CURVE, STATION 5, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	4.
40%	9.
60%	9.
80%	4.

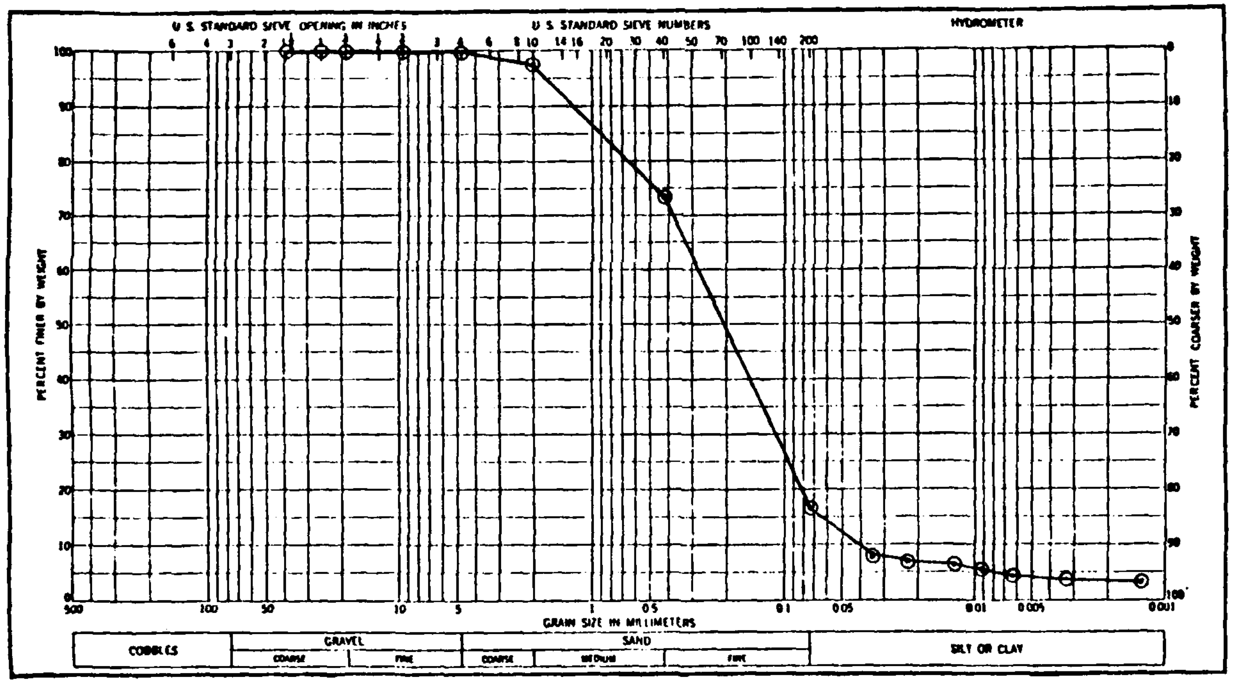
FIGURE L-1f. SEDIMENT GRADATION CURVE, STATION 6, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	6.
40%	6.
60%	6.
80%	5.

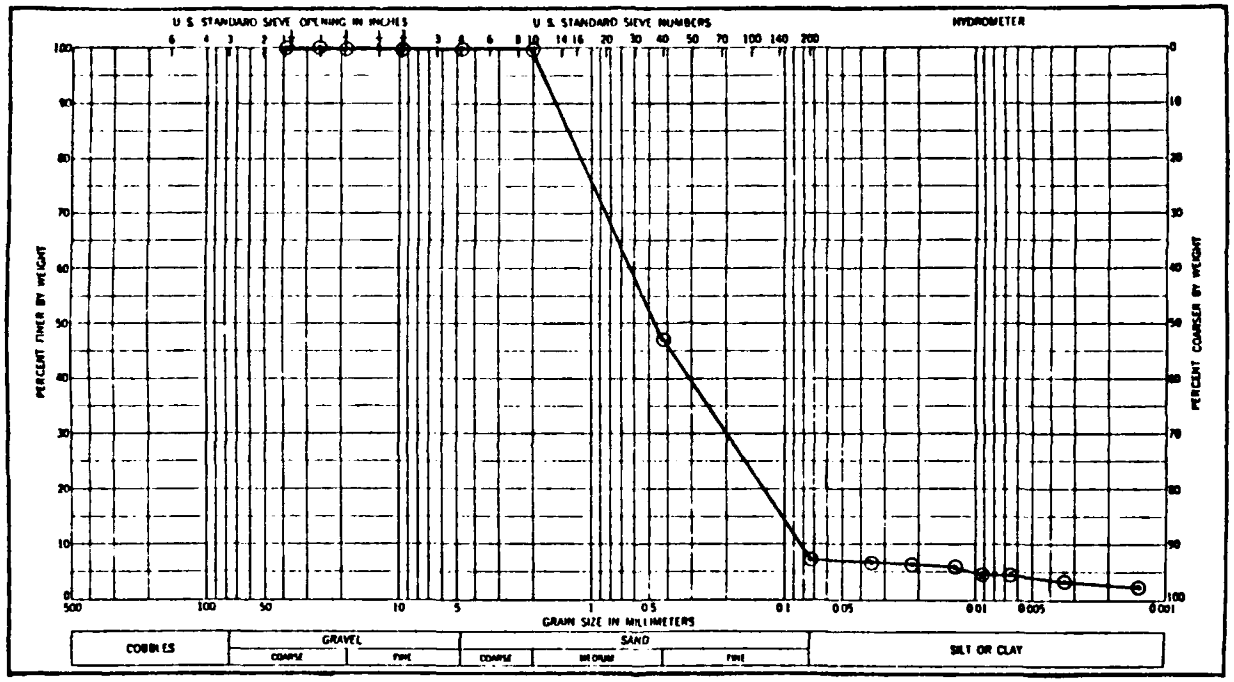
FIGURE L-1g. SEDIMENT GRADATION CURVE, STATION 7, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

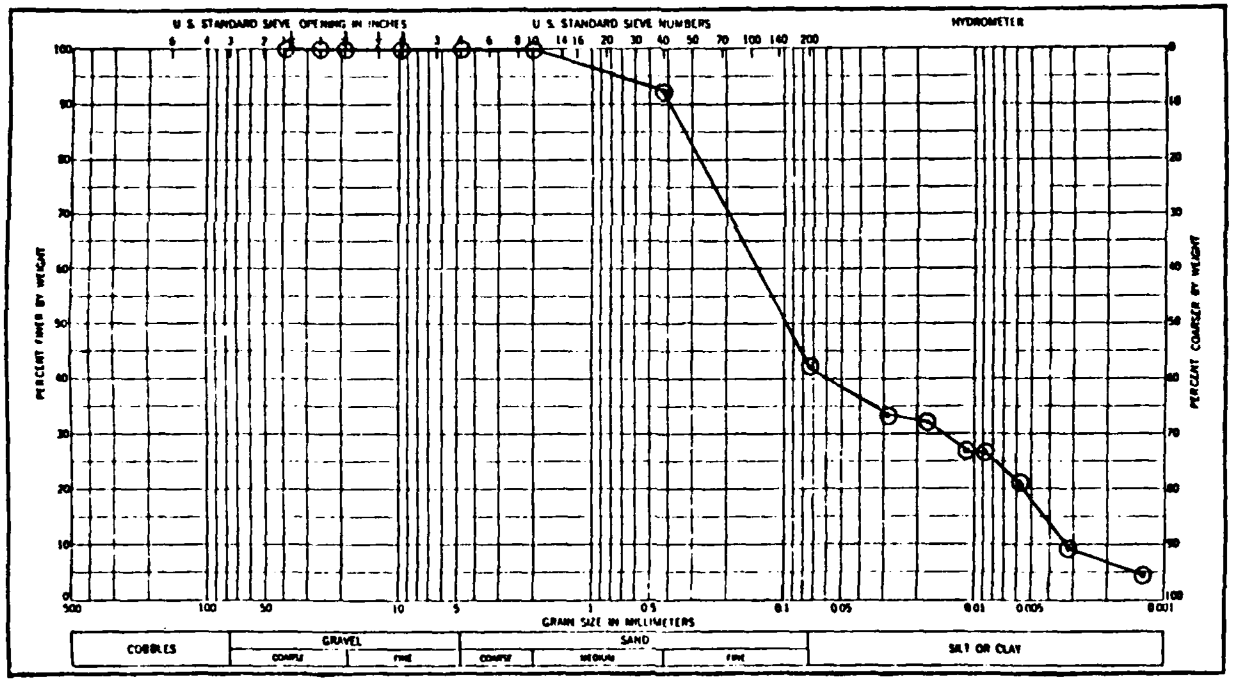
X-section (% from R-bank 1k. upstream)	Depth (M)
20%	4.
40%	6.
60%	8.
80%	8.

FIGURE L-1h. SEDIMENT GRADATION CURVE, STATION 8, CYCLE 4, AUGUST 14-19, 1978.



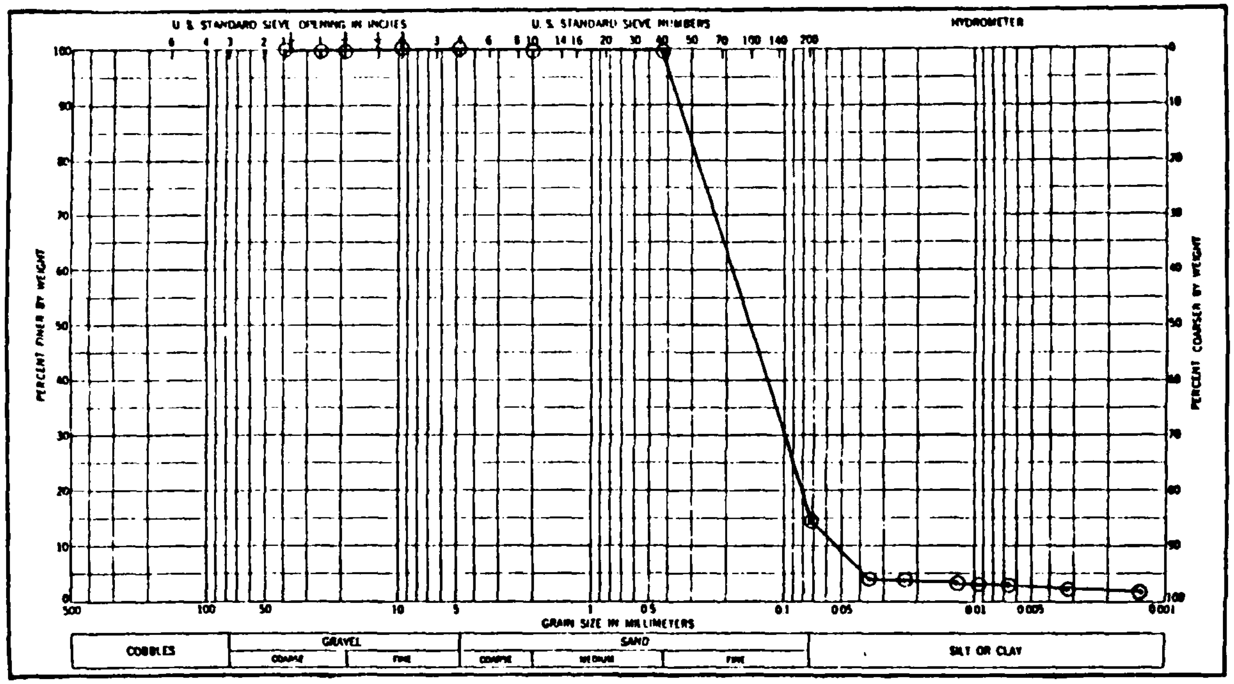
NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge taken 90° apart on a 20-foot diameter circle at a depth of 2. meters.

FIGURE L-1i. SEDIMENT GRADATION CURVE, STATION 9, CYCLE 4, AUGUST 14-19, 1978.



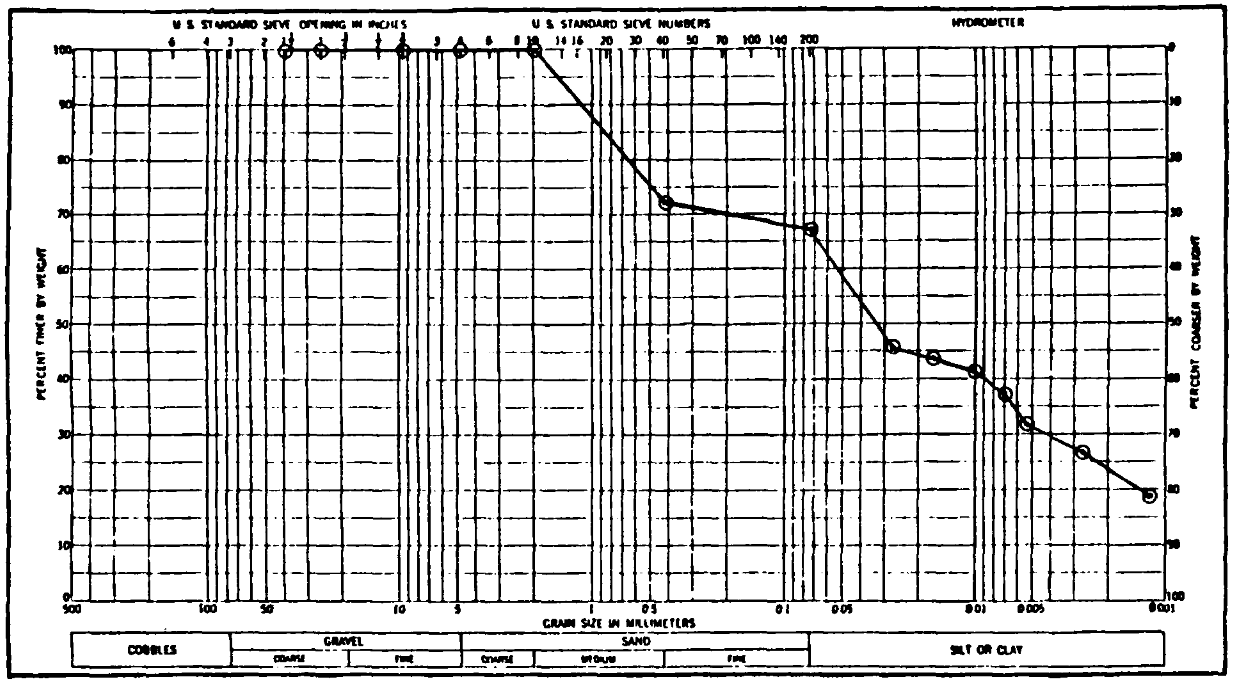
NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge taken 90° apart on a 20-foot diameter circle at a depth of 6. meters.

FIGURE L-1j. SEDIMENT GRADATION CURVE, STATION 10, CYCLE 4, AUGUST 14-19, 1978.



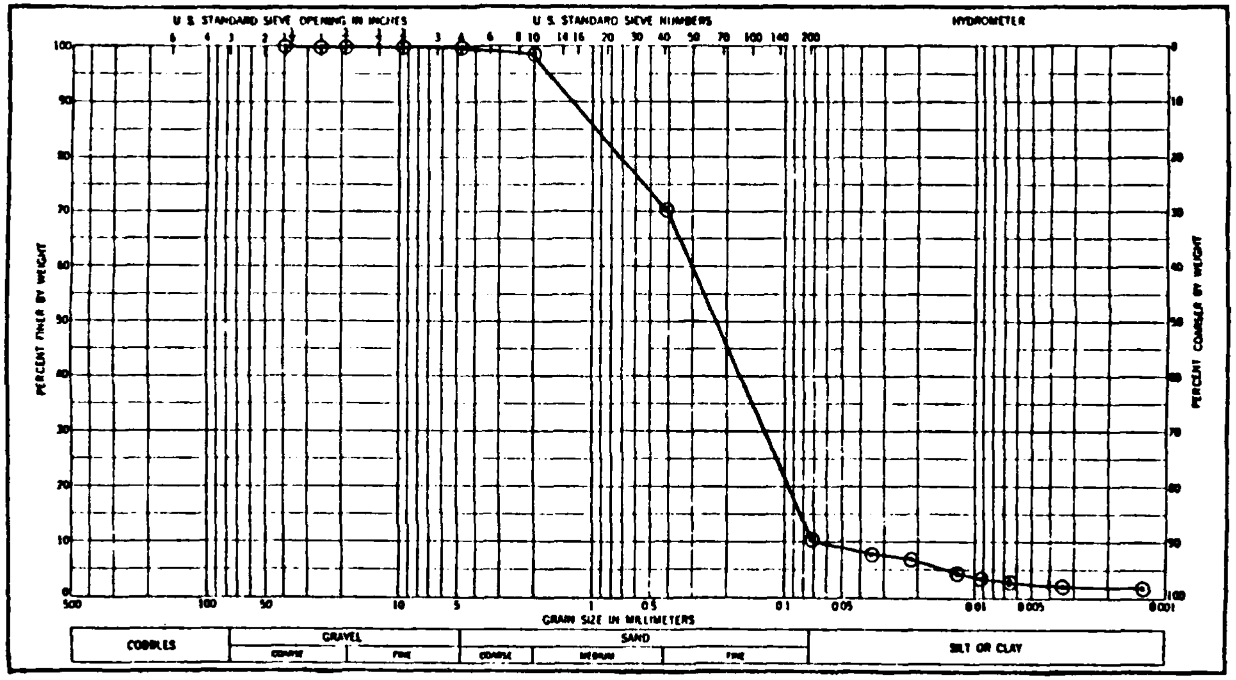
NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge taken 90° apart on a 20-foot diameter circle at a depth of 1.8 meters.

FIGURE L-1k. SEDIMENT GRADATION CURVE, STATION 11, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge taken 90° apart on a 20-foot diameter circle at a depth of 6. meters.

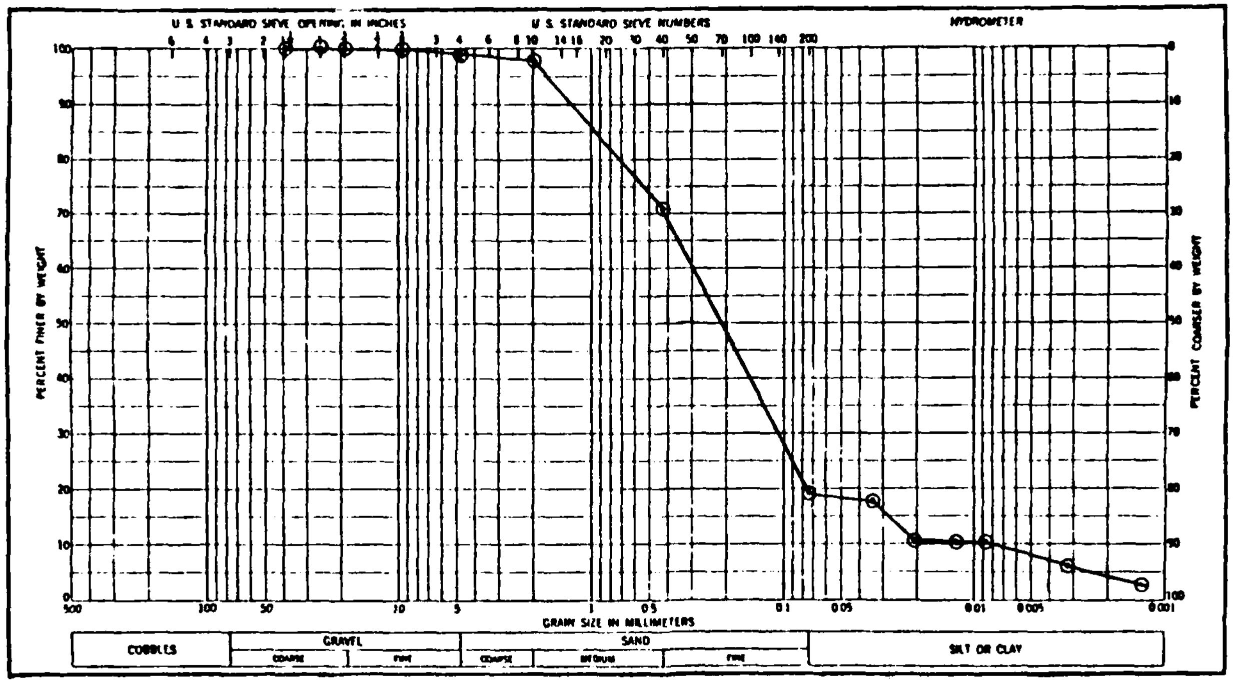
FIGURE L-11. SEDIMENT GRADATION CURVE, STATION 12, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

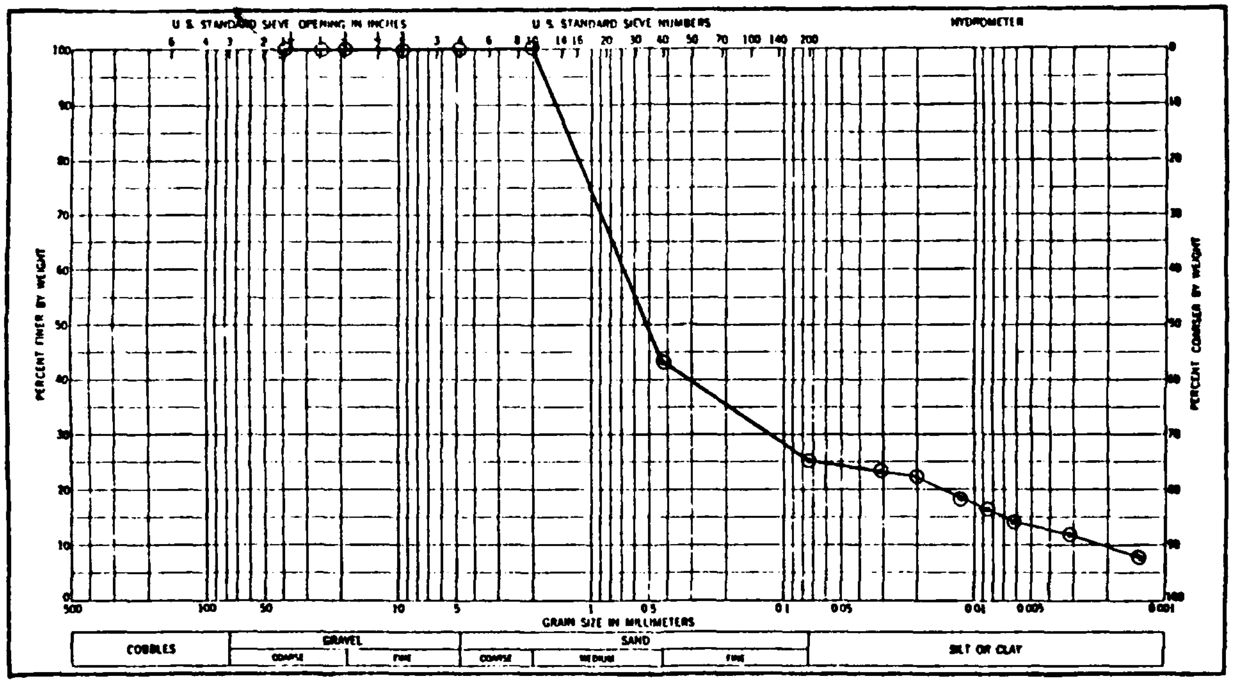
X-section (% from R-bank 1k. upstream)	Depth (M)
20%	3.
40%	1.3
60%	1.3
80%	1.3

FIGURE L-1m. SEDIMENT GRADATION CURVE, STATION 13, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge taken 90° apart on a 20-foot diameter circle at a depth of 5. meters.

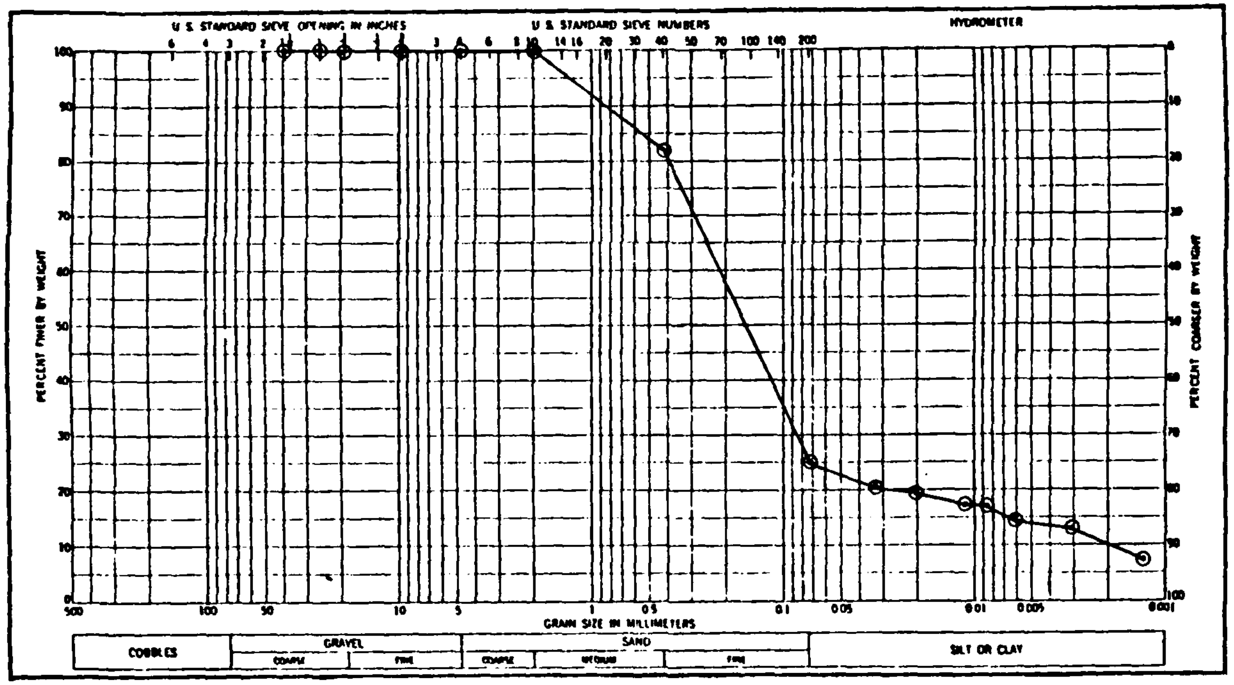
FIGURE L-1n. SEDIMENT GRADATION CURVE, STATION 14, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	3.
40%	6.
60%	3.
80%	4.

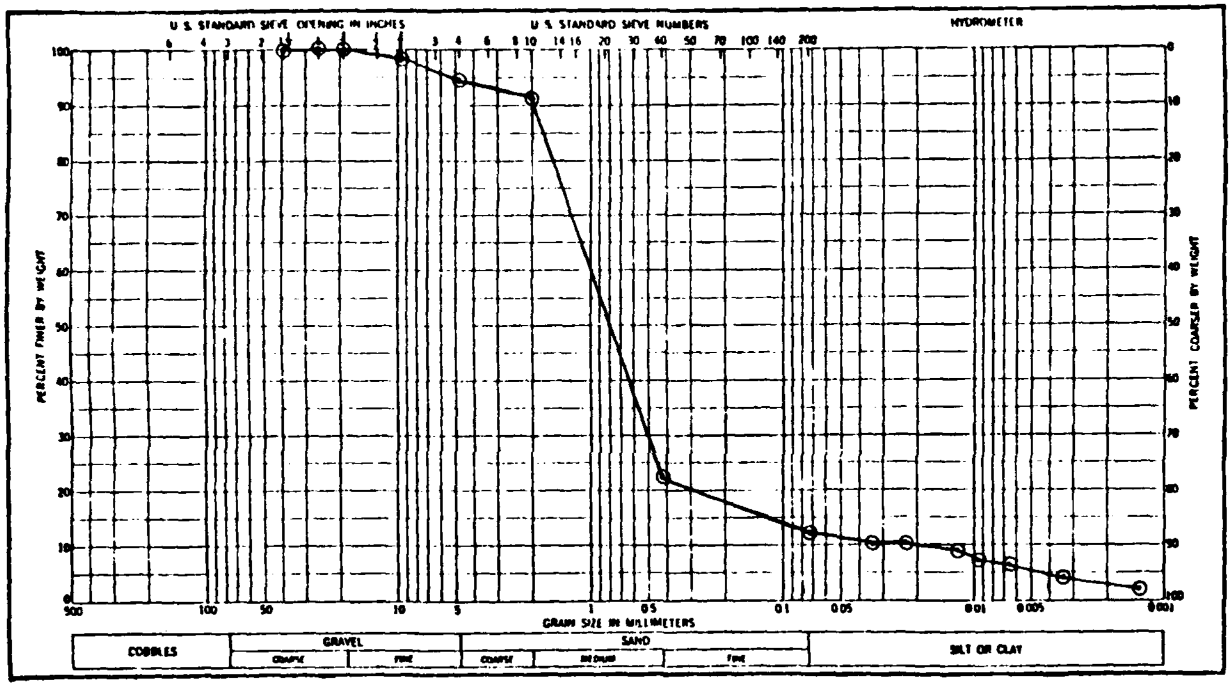
FIGURE L-1o. SEDIMENT GRADATION CURVE, STATION 15, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	3.
40%	8.
60%	7.
80%	7.

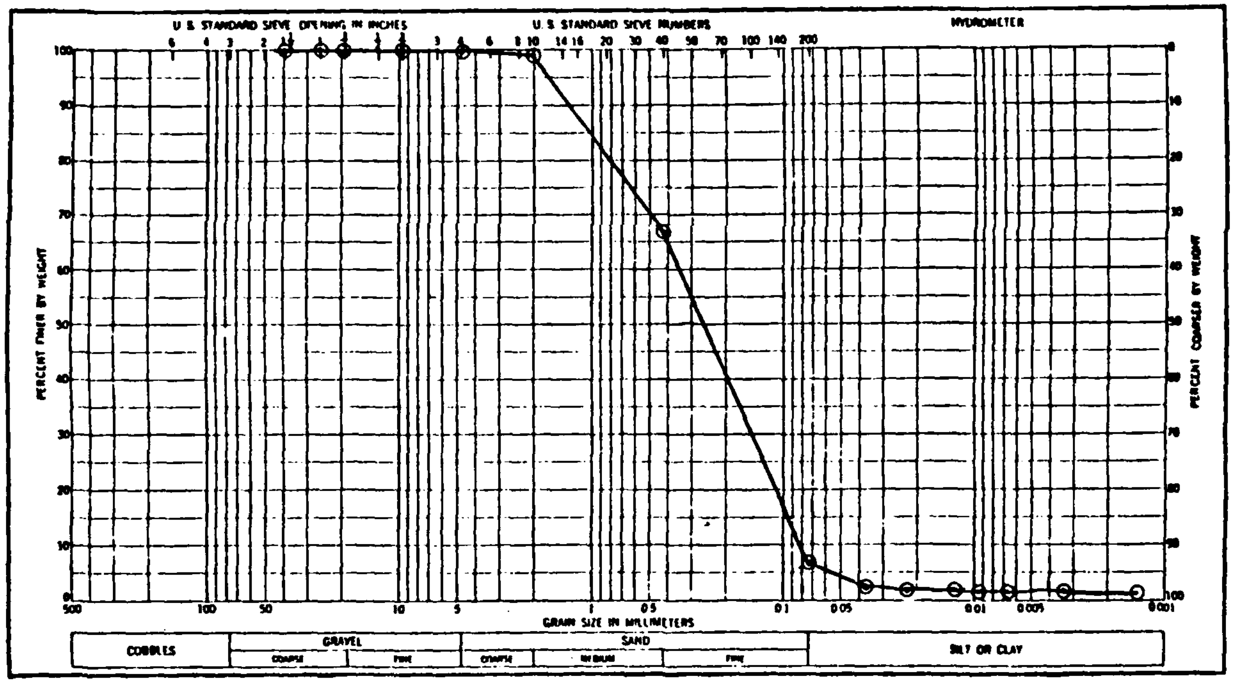
FIGURE L-1p. SEDIMENT GRADATION CURVE, STATION 16, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	5.
40%	5.
60%	5.
80%	6.

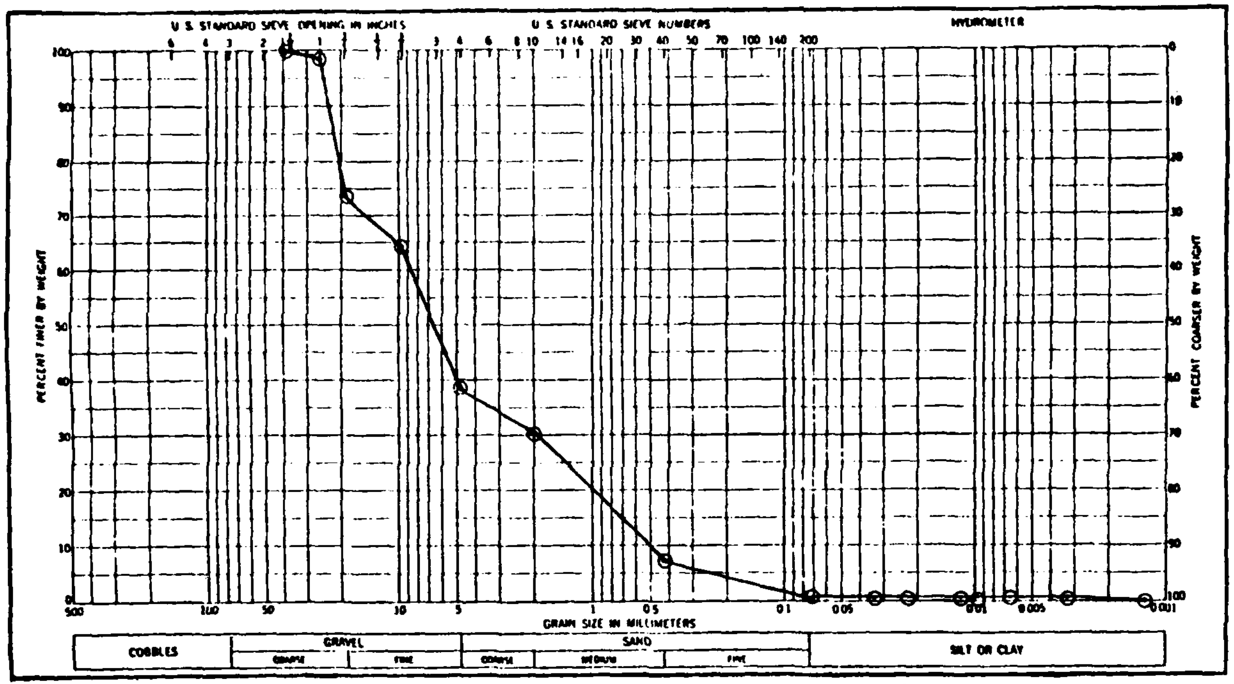
FIGURE L-1q. SEDIMENT GRADATION CURVE, STATION 17, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from three surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank lk. upstream)	Depth (M)
40%	4.
60%	4.
80%	3.

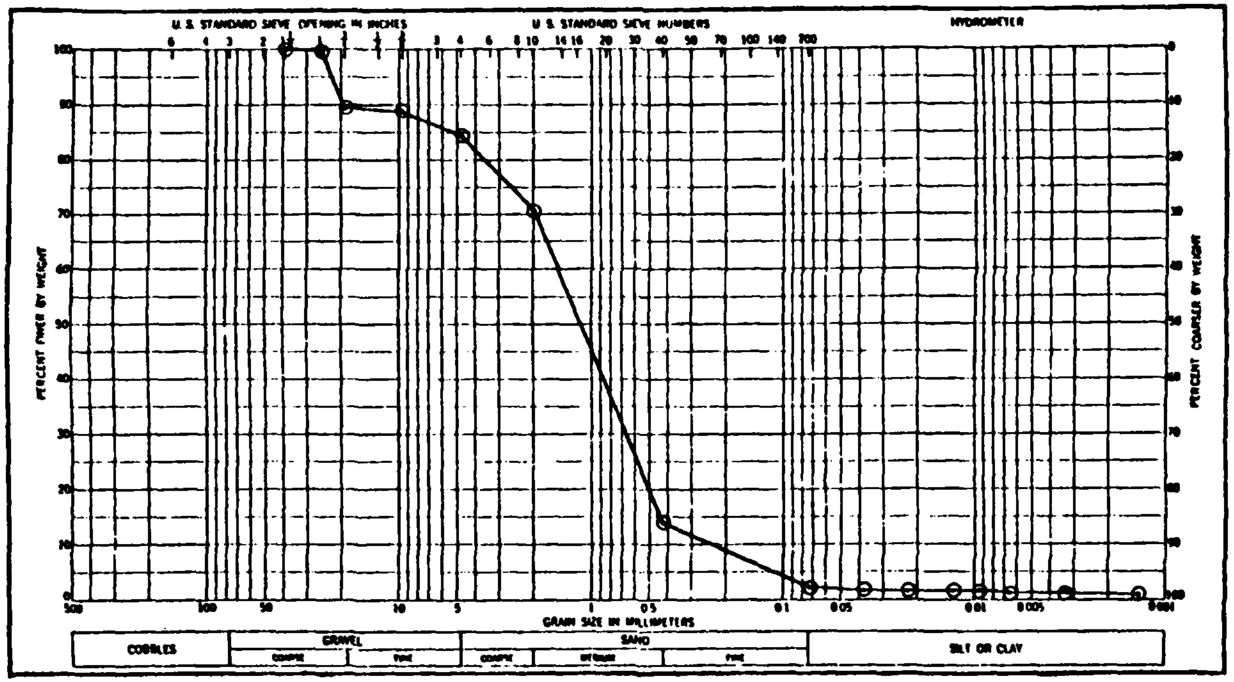
FIGURE L-1r. SEDIMENT GRADATION CURVE, STATION 18, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	5.
40%	5.
60%	5.
80%	5.

FIGURE L-1s. SEDIMENT GRADATION CURVE, STATION 19, CYCLE 4, AUGUST 14-19, 1978.



NOTE: Composited from four surface sediment samples obtained with an epoxy coated ponar dredge at:

X-section (% from R-bank 1k. upstream)	Depth (M)
20%	4.
40%	5.
60%	5.
80%	5.

APPENDIX M

AQUATIC MACROPHYTES

LIST OF TABLES

TABLE M-1

AQUATIC MACROPHYTES NOTED TO BE COMMON TO ABUNDANT IN LAKE SEMINOLE DURING THE 1978 FIELD SURVEYS

Algae	S*	E	F
Chara spp.; chara	x		
Lyngbya/Spirogyra; algal mat			x
Nitella spp.; nitella	x		
Vascular			
Justicia americana; water willow		x	
Sagittaria latifolia; common arrowhead		x	
Alternanthera philoxeroides; alligator-weed		x	
Colocasia esculenta; wild taro		x	
Orontium aquaticum; goldenclub		x	
Alnus serrulata; speckled alder		x	
Betula nigra; river birch		x	
Brasenia schreberi; watershield		x	
Cabomba caroliniana; fanwort	x		
Sphenoclea zeylandica; chicken spike		x	
Ceratophyllum demersum; common coontail	x		
Ceratophyllum echinatum; prickly coontail	x		
Mikania scandens; climbing hempweed		x	
Carex spp.; sedges		x	
Cyperus spp.; sedges		x	
Eleocharis acicularis; slender spikerush		x	
Eleocharis cellulosa; spikerush		x	
Eleocharis equisetodes; knotted spikerush		x	
Hydrochloa carolinensis; water grass		x	
Leersia hexandra; cutgrass		x	
Panicum hemitomum; maidencane		x	
Panicum repens; torpedograss		x	
Zizaniopsis miliaceae; giant cutgrass		x	
Hypericum spp.; St. Johns wort		x	
Myriophyllum brasiliense; parrotfeather	x		
Myriophyllum spicatum; Eurasian watermilfoil	x		
Egeria densa; elodea	x		
Hydrilla verticillata; hydrilla	x		
Vallisneria americana; eelgrass	x		
Juncus effusus; soft rush		x	
Juncus spp.; rushes		x	
Lemna perpusilla; common duckweed			x
Spirodela polyrhiza; giant duckweed			x

TABLE M-1 (continued)

	S	E	F
Utricularia floridana; giant bladderwort	x		
Utricularia inflata; purple bladderwort	x		
Utricularia purpurea; floating bladderwort	x		
Mayaca fluviatilis; bog moss	x		
Nymphoides aquaticum; banana lily		x	
Myrica cerifera; wax myrtle		x	
Najas guadalupensis; southern naiad	x		
Najas minor; naiad	x		
Nelumbo lutea; American lotus		x	
Nuphar advena; spatterdock		x	
Nymphaea odorata; fragrant waterlily		x	
Nyssa aquatica; swamp tupelo		x	
Nyssa ogeche; ogeche tupelo		x	
Ludwigia decurrens; singed waterprimrose		x	
Ludwigia leptocarpa; waterprimrose		x	
Ludwigia palustris; water purslane		x	
Ludwigia peruviana; waterprimrose		x	
Platanus occidentalis; sycamore		x	
Polygonum spp.; smartweeds		x	
Eichorrnia crassipes; water hyacinth			x
Pontedaria cordata; pickerelweed		x	
Pontedaria lanceolata; southern pickerelweed		x	
Potamogeton diversifolius; snailseed pondweed		x	
Potamogeton illinoiensis; Illinois pondweed	x		
Potamogeton nodosus; American pondweed		x	
Cephalanthus occidentalis; buttonbush		x	
Salix caroliniana; coastal plain willow		x	
Salix nigra; black willow		x	
Saururus cernuus; lizard's tail		x	
Bacopa caroliniana; water mint	x		
Sparganium americanum; burreed		x	
Taxodium ascendens; pond cypress		x	
Taxodium distichum; bald cypress		x	
Typha domingensis; southern cattail		x	
Typha latifolia; cattail		x	
Hydrocotyle ranunculoides; splitleaf pennywort			x
Xyris spp.; yellow-eyed grass		x	

* S = Submersed
E = Emergent
F = Floating

TABLE M-2

APPROXIMATE PERCENT COVER OF THE DOMINANT AQUATIC MACROPHYTES OBSERVED IN THE VARIOUS AREAS OF LAKE SEMINOLE, 1978

	S*	E	F
Chattahoochee River Area			
Egeria densa; egeria or elodea	P		
Zizaniopsis miliaceae; giant cutgrass		90	
Justicia americana; water willow		P	
Colocasia esculenta; wild taro		P	
Sphenoclea zeylandica; chicken spike		5	
Eichorrnia crassipes; water hyacinth			P
Game Management Area			
Myriophyllum spicatum; Eurasian watermilfoil	75		
Myriophyllum brasiliensis; parrotfeather	5		
Cabomba caroliniana; fanwort	5		
Potamogeton illinoiense; Illinois pondweed	5		
Najas minor; naiad	5		
Najas quadalupensis; southern naiad	5		
Hydrilla verticillata; hydrilla	P		
Utricularia spp.; bladderworts	P		
Ceratophyllum demersum; common coontail	P		
Bacopa caroliniana; water mint	P		
Nymphaea odorata; fragrant water lily		5	
Brasenia schreiberi; water shield		5	
Polygonum spp.; smartweeds		P	
Pontedaria cordata; pickerelweed		P	
Panicum repens; torpedograss		5	
Panicum hemitomum; maidencane		5	
Leersia hexandra; cutgrass		5	
Eleocharis spp.; spikerushes		P	
Zizaniopsis miliaceae; giant cutgrass		10	
Eichorrnia crassipes; water hyacinth			P
Hydrocotyle ranunculoides; splitleaf pennywort			P
Lemna perpusilla; common duckweed			P
Fish Pond Drain Area			
Hydrilla verticillata; Hydrilla	75		
Cabomba caroliniana; fanwort	P		
Najas spp; naiads	5		
Potamogeton illinoiense; Illinois pondweed	5		
Nitella sp.; nitella	P		
Panicum repens; torpedograss	P		

TABLE M-2 (continued)

	S	E	F
Panicum hemitomum; maidencane	P		
Leersia hexandra; cutgrass	P		
Typha spp.; cattails	P		
Nuphar advena; spatterdock		P	
Nymphaea odorata; fragrant water lily		P	
Brasenia schreiberi; watershield		P	
Nymphoides aquaticum; banana lily		P	
Nelumbo lutea; American lotus		P	
Turkey Pond Drain			
Hydrilla verticillata; hydrilla	70		
Potamogeton illinoiense; Illinois pondweed	15		
Myriophyllum brasiliense; Eurasian watermilfoil	5		
Limnophila sessiliflora; limnophila	P		
Chara sp.; chara	P		
Nitella sp.; nitella	P		
Typha spp.; cattails		P	
Panicum repens; torpedograss		P	
Panicum hemitomum; maidencane		P	
Leersia hexandra; cutgrass		P	
Pontedaria cordata; pickerelweed		P	
Eichorrnia crassipes; water hyacinth			P
Lake Seminole Island Area			
Myriophyllum spicatum; Eurasian watermilfoil	75		
Hydrilla verticillata; hydrilla	5		
Ceratophyllum demersum; coontail	5		
Potamogeton illinoiense; Illinois pondweed	10		
Chara spp.; chara	P		
Cabomba caroliniana; fanwort	P		
Typha spp.; cattails		5	
Zizaniopsis miliaceae; giant cutgrass		5	
Panicum repens; torpedograss		P	
Panicum hemitomum; maidencane		P	
Justicia americana; water willow		P	
Eleocharis spp.; spikerushes		P	
Pontedaria cordata; pickerelweed		P	
Nyssa spp.; tupelo		P	
Taxodium spp.; cypress		P	
Cephalanthus occidentalis; buttonbush		P	
Saururus cernuus; Lizard's-tail		P	
Nymphaea odorata; fragrant water lily		5	

TABLE M-2 (continued)

	S	E	F
Brasenia schreiberi; water shield		P	
Nymphoides aquaticum; banana lily		P	
Nelumbo lutea; American lotus		5	
Potamogeton nodosus; American pondweed		P	
Potamogeton diversifolius; snailseed pondweed		P	
Eichorrnia crassipes; water hyacinth			P
Lemna perpusilla; common duckweed			P
Lower Spring Creek Area			
Myriophyllum spicatum; Eurasian watermilfoil	75		
Potamogeton illinoiense; Illinois pondweed	20		
Typha spp.; cattails		P	
Leersia hexandra; cutgrass		P	
Nymphaea odorata; fragrant water lily		P	
Eichorrnia crassipes; water hyacinth			P
Spring Creek Area			
Myriophyllum spicatum; Eurasian watermilfoil	90		
Potamogeton illinoiense; Illinois pondweed	5		
Najas spp.; naiads	P		
Typha spp.; cattails		P	
Nuphar advena; spatterdock		P	
Ludwigia spp.; water primroses		P	
Eichorrnia crassipes; water hyacinth			P
Silver Lake Area			
Myriophyllum spicatum; Eurasian watermilfoil	75		
Hydrilla verticillata; hydrilla	5		
Najas spp.; naiads	5		
Potamogeton illinoiense; Illinois pondweed	5		
Typha spp.; cattails		P	
Zizaniopsis miliaceae; giant cutgrass		P	
Panicum repens; torpedograss		P	
Panicum hemitomum; maidencane		P	
Leersia hexandra; cutgrass		P	
Eichorrnia crassipes; water hyacinth			P
Hydrocotyle ranunculoides; splitleaf pennywort			P
Flint River Area			
Myriophyllum spicatum; Eurasian watermilfoil	P		
Myriophyllum brasiliense; parrotfeather	P		
Najas spp.; naiads	P		

TABLE M-2 (Continued)

	S	E	F
Lyngbya-Spyrogyra algal mats	10		
Zizaniopsis miliaceae; giant cutgrass		5	
Typha spp.; cattails		P	
Alternanthera philoxeroides; alligatorweed		P	
Eichorrnia crassipes; water hyacinth			5
Hydrocotyle ranunculoides; splitleaf pennywort			P
Lemna perpusilla; common duckweed			P
Spirodela polyrhiza; giant duckweed			P

*S = Submerged
E = Emergent
F = Floating

END

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